OKI

OKIOFFICE 120 Facsimile System

Maintenance Manual

U.K. version 1.0 (15 April 1998). All specifications are subject to change without notice.

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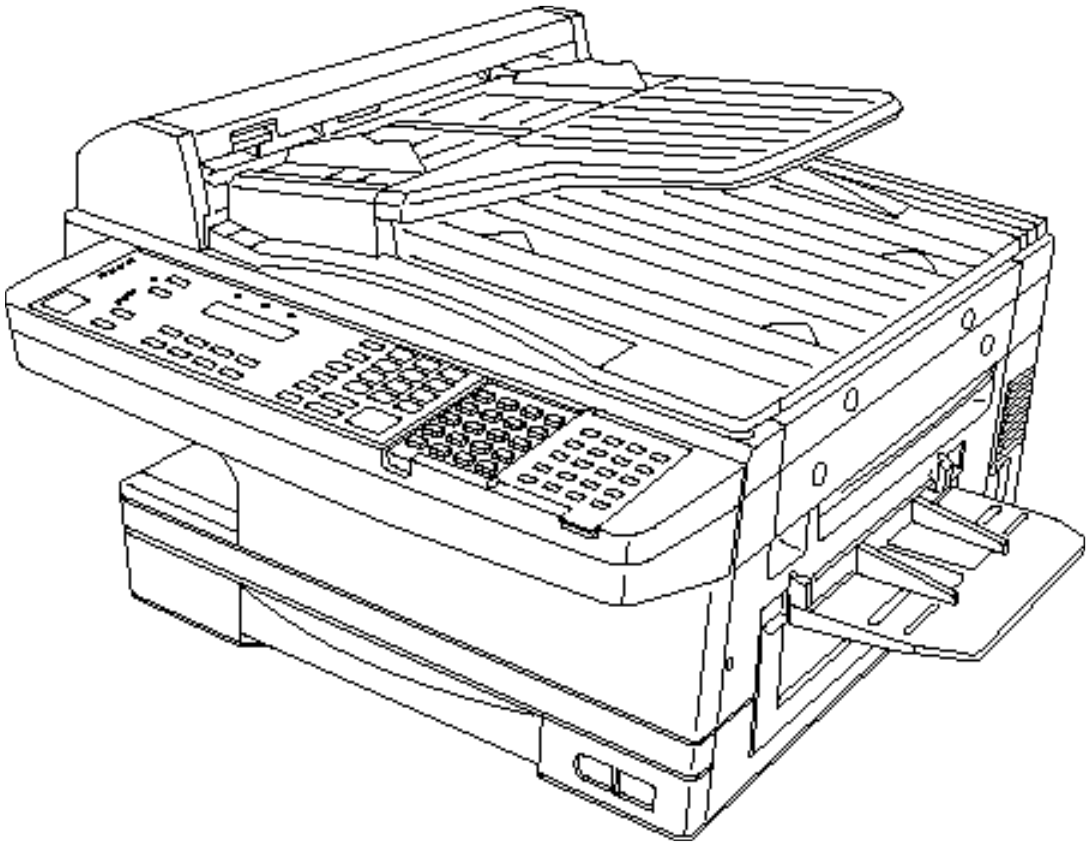
Section1
General Description

1.1 Product Description

The OKIOFFICE 120 is a Multi-function product with flat bed scanner and Group 3 facsimile machine. Documents are printed on plain paper using dry electrophotographic printing.



1.2 Applied regulations

1) EMI
   EN55022, EN50081-1, EN50082-1
2) Safety
   EN41003, EN60950
3) PTT
   NTR-3
4) EPA (United States Environmental Protection Agency)
   ENERGY STAR

1.3 Specifications

1.3.1 General specifications

Item	Specifications / Comments
Type	Multi-function product with flatbed scanner & high-speed facsimile transmitter and receiver
Telephone network	PSTN (Public Switched Telephone Network) or equivalent
Compatibility	ITU-T Group 3
Transmission control protocol	ITU-T T.4 and T.30
Coding	ITU-T-standard MH, MR and MMR, proprietary MSE
Communication method	Half-duplex per ITU-T V.17, V.33, V.29, V.27ter and V.21
Modem	14400, 12000, 9600, 7200, 4800 and 2400 bps with automatic fallback per ITU-T, V.17, V33, V.29, V.27ter and V21. Control signal speed is 300 bps.
ITU-T sub-address / password	Supported
Triple Access	Allows up to three simultaneous operations
Display	LCD: 2 lines, 20 characters per line
Scanning method	Flatbed CCD
Recording method	Dry, electrophotographic (LED) process
Scanning width	208 mm / 252 mm / 294 mm
Recording width	206 mm / 251 mm
Acceptable document size	ADF (Auto Document Feeder) section Single sheet Two or more sheets Max: 306 mm (W) × 900 mm (L) Max: 297 mm (W) × 420 mm (L) Min: 120 mm (W) × 100 mm (L) Min: 148 mm (W) × 105 mm (L) Document thickness 52.3 – 104.7g/m^2
	FBS (Flatbed Scanner) section Max: 257 mm (W) × 364 mm (L)
Recording paper	Paper cassette: B4/A4/B5R/A5R; 400-sheets capacity Optional paper cassette: B4/A4/B5R/A5R; 200-sheets capacity Multipurpose Tray: A4 / A5 / A5R / B5; 1 sheet capacity
Document Memory	2 MB (upgrade option: plus 2MB or plus 4MB or plus 8MB)
Error Correction Mode (ECM)	Transmit and receive Buffer capacity: 64KB

Item	Specifications / Comments
Environmental conditions	Ambient temperature: 10 ℃ to 32 ℃ (50 to 89.6 degrees F) Relative humidity: 20 % to 80 % with no condensation
Power requirements	230 VAC ± 10 %; 50/60 Hz
Power consumption	Standby: 21 W Transmit: 47 W Receive: 592 W Copy: 621 W Maximum: 839 W (Simultaneous copying, communicating and scanning)
Weight	32 Kg (70.4 pounds) Weight includes trays, drum , toner cartridge.

1.3.2 Scanning specifications

Item	Spcifications / Comments
Scanning method	Flatbed CCD
Scanning width	ADF (Automatic document feeder) section 208 mm / 252 mm / 294 mm
	FBS (Flatbed scanner) section 208 / 252 mm
Acceptable document size	ADF (Auto document feeder) section Single sheet Two or more sheets Max: 306 mm (W) × 900 mm (L) Max: 297 mm (W) × 420 mm (L) Min: 120 mm (W) × 100 mm (L) Min: 148 mm (W) × 105 mm (L) Document thickness 52.3–104.7g/m^2
	FBS (Flatbed scanner) section Max: 257 mm (W) × 364 mm (L) Min: No limit
Document size auto-detection	ADF section: A4/B4/A3
	FBS section: N/A
Scanning resolution (Fax)	Horizontal × Vertical Normal: 8 dots × 3.85 lines (/mm) (203 dpi × 98 dpi) Fine: 8 dots × 7.7 lines (/mm) (203 dpi × 196 dpi) Super fine: 8 dots × 15.4 line (/mm) (203 dpi × 392 dpi) Grayscale: 8 dots × 7.7 line (/mm) (203 dpi × 196 dpi) If the remote unit has 400 × 400 dpi print ability: Super fine: 16 dots × 15.4 line (/mm) (406 dpi × 392 dpi) Grayscale: 16 dots × 15.4 line (/mm) (406 dpi × 392 dpi)
Scanning resolution (Copy)	Horizontal × Vertical Normal: N/A Fine: N/A Super fine: 16 dots × 15.4 line (/mm) (406 dpi × 392 dpi) Grayscale: 16 dots × 15.4 line (/mm) (406 dpi × 392 dpi)
Document scan time (Fax)	Normal: 2 sec/page Fine: 4 sec/page Super fine: 8 sec/page Grayscale: 4 sec/page, when copying, 8 sec/pages (Based on ITU-T test document No.1)
Document scan time (Copy)	Super fine: 8 sec/page Grayscale: 8 sec/page (Based on ITU-T test document No.1)
Automatic document feeder capacity	A4 : 50 sheets B4 : 25 sheets A3 : 15 sheets

Item	Spcifications / Comments
Grayscale (Fax)	64 level. (128 level: only when using the non-memory transmission and the remote unit has 400 × 400 dpi print ability.)
Grayscale (Copy)	128 level.
Document contrast	5 levels (Manual adjustment)
Original document feeding direction	ADF section: Face up FBS section : Face down

1.3.3 Printer specifications

Item	Specifications / Comments
Printing method	Electrophotographics (LED) printer by one-component nonmagnetic toner
Print width	A4:206 mm / B4: 251 mm
Printer Resolution	Horizontal: 16 dot/mm (406 dpi) Vertical: 15.4 line/mm (392 lpi)
Print speed	12 ppm (A4-portrait)
Receive paper tray capacity	150 sheets
Recording paper specifications	B4: (257 mm (W) × 364 mm (L)) B5R: (257 mm (W) × 182 mm (L)) A4: (210 mm (W) × 297 mm (L)) A5R: (210 mm (W) × 146 mm (L))
Paper cassette capacity	Paper cassette: 400 sheets +200 sheets (option) + 200 sheets (option) Multipurpose tray: 1 sheet
Toner yield	Approx. 6000 pages Based on A4-sized sheets, 5% document coverage and continuous printing.
Drum yield	Approx. 10000 pages
Printer warm up time	Under 40 second

1.3.4 Memory specifications

Item	Specifications / Comments
Document memory	2 MB Optional memory upgrade: 2 MB, 4 MB or 8MB
Out-of paper reception	Receives up to 100 communications to memory if recording paper supply or printer supplies are empty.
Document stored capacity	2 MB: 158 pages 4 MB: 318 pages 6 MB: 478 pages 10 MB: 798 pages
Document memory backup	2 MB: 100 hours after turning on for 24 hours. 4 MB: 50 hours after turning on for 24 hours. 6 MB: 30 hours after turning on for 24 hours. 10 MB: 20 hours after turning on for 24 hours.
Memory usage indication	On the LCD

1.3.5 G3 modem section

Transmission mode	V.17				V.33	
Modulation method	128 Pt. TCM	64 Pt. TCM	32 Pt. TCM	16 Pt. TCM	128 Pt. TCM	64 Pt. TCM
Transmission speed (bit/s)	14400	12000	9600	7200	14400	12000
Modulation speed (baud)	2400	2400	2400	2400	2400	2400
Carrier frequency (Hz)	1800					
Detection method	Synchronism					
Automatic equalizer	Automatic adaptive equalizer					

Transmission mode	V.29		V.27ter		V.21
Modulation method	16 Pt. QAM	8 Pt. QAM	8 Pt. PhM	4 Pt. PhM	FSK
Transmission speed (bit/s)	9600	7200	4800	2400	300
Modulation speed (baud)	2400	2400	1600	1200	300
Carrier frequency (Hz)	1700		1800		f (0) = 1850 f (1) = 1650
Detection method	Synchronism				FS
Automatic equalizer	Automatic adaptive equalizer				None

1.4. Features and Functions

1.4.1 Dialer

Item	Specifications / Comments
Autodialer	200 total; 128 speed dial, 72 one-touch(8 programmable one-touch) (Up to 40 digits per location; 24 characters per location ID)
Telephone index	Select autodialer entries in LCD by Location ID name.
Type of dialing	Tone or pulse(10 pps)
Dialing pause time	5-10 second.
On-hook dialing	Available
Redial	Auto redial in fax mode, programmable for 2 to 5 attempts at 3, 4, or 5 minute intervals; manual last-number redial.
PIN access	Available

1.4.2 Fax Transmitting

Item	Specifications / Comments
Transmit Terminal Identifier (TTI)	Alphanumeric or symbol, up to 22 characters
Subscriber ID	Numeric, up to 20 characters
Memory transmission	Available.
Non-memory transmission	Available. (ADF only.)
Delayed transmission	Programmable up to 31 days in advance
Broadcast transmit	Up to 220 locations.
Relay broadcast	Initiation up to 220 locations and hub abilities up to 10 groups
SecureMail	Transmit and receive (10 mailboxes for receiving, 4 digits ID-code).
SecureMail (ITU-T subaddress / password)	Transmit and receive (50 mailboxes for receiving, 4 digits passcode).
Group communication	Allows multiple broadcast or polling locations to be placed in up to 32 call groups. Up to 200 locations can be placed in a group. Group 0 includes all autodialer locations.
Security transmission	Compares the last 4 numbers of the dialed fax number to the last 4 digits of the subscriber ID.
Batch transmission	5 boxes with a location ID of 24 characters. 40 files per box. Programmable up to 24 hours per box.
Numbering pages	Just before sending a fax, you can set your fax machine to number each page in order. This will help the recipient keep track of all the pages.
Cover page	Cover page shows date and time, sender's name and fax number, and a 40-character user-programmable message.
Delayed commands	Store up to 99 delayed commands.
Department code	For tracking transmissions by department. Hold up to 100 department codes.
Call request	During sending or receiving, a voice conversation can be initiated on the same call after each page is printed. (Works only if the optional handset is attached.)

1.4.3 Fax Receiving

Item	Specifications / Comments
Receive mode	Fax ready, Tel/Fax Ready, Fax/Tel Ready, Ans/Fax Ready or Tel ready mode; user selectable.
Distinctive ring detection	Ability to answer on specific ring patterns. User selectable
Number of rings	In Fax ready mode, select 1 to 9 rings.
Automatic reduction	Automatically reduces incoming documents to fit on receive paper.
Receive reduction rate (Auto)	Auto: 50 % to 100 % when auto reduction is selected. Reduction margin: 0-85 mm (Initial value: 24 mm)
Receive reduction rate (Fixed value)	100, 97, 91, 81, 75 % :User selectable
Half-page reception	Available. (This feature tells the machine to combine two of half-page receptions onto a single sheet.)
SecureMail	10 mailboxes for receiving, 4 digits ID-code. Holds a SecureMail up to 31 days.
SecureMail (ITU-T subaddress / password)	Using the ITU-T sub-address and password provide to SecureMail communication not only with other OKIOFFICE 120 fax machines (or compatible brand), but fax machines of other manufactures as well. Up to 50 mailboxes for receiving, 4 digits passcode. Holds a document up to 31 days (or no limit).
Block junk fax	Ability to reject “junk fax” receptions: user selectable three options.
Closed network	Proprietary network option
Out-of paper reception	Receives up to 100 communications to memory if recording paper supply or printer supplies are empty.
Security reception	You can tell the machine to keep all received faxes in memory (but not print them) after a certain time; then, later, you instruct it to go ahead and print out the saved faxes.
Remote reception upon second phone connection	Fax is activated upon termination of a call that is answered by a telephone connected to second phone jack.

1.4.4 Polling

Item	Specifications / Comments
Delayed polling	Programmable up to 31 days in advance.
Regular polling	Retrieves a document from the remote fax machine.
Continuous polling	Retrieves continuously a document from any remote fax machine for the designed time.
Database polling	Possible only in communication with certain memory equipped OKI fax machine. Retrieves a document stored as a file in the remote fax machine’s memory. You can enter as many as 10 file numbers in one operation. Enter 4 digits file number.
Database polling (ITU-T subaddress /password)	Using the ITU-T sub-address and password provide to database polling communication not only with other OKIOFFICE 120 fax machines (or compatible brand), but fax machines of other manufactures as well. Retrieves a document stored in a memory-box in the remote fax machine. You must enter a ITU-T subaddress to retrieves a document from any remote fax’s memory box.

1.4.5 Copy

Item	Specifications / Comments
Multiple copies	Up to 99 with sorting
Copy reduction and enlargement rate	50 % to 200 % at 1 % interval.
Copy reduction rate	Fixed value: 115, 122, 141, 172, 200%
Copy enlargement rate	Fixed value: 50, 70, 81, 86%
Copy protect	Available

1.4.6 Other features

Item	Specifications / Comments
Silent operation	Available
Audible alarm	Available
Operation protect	Available
Second telephone jack	Available
Transmission confirmation stamp	If you set, it will automatically place a small stamp mark on the front of each original document that it successfully scans.

1.4.7 Reports

Report	Description
Function list	Prints a program mode list showing user programming tree.
One-touch dial list	Prints numbers stored in the one-touch keys.
Speed dial list	Prints phone numbers stored in speed dial locations.
Programmable one-touch list	Prints numbers stored in programmable one-touch keys.
User settings list	Prints current machine settings as programmed by the user.
Group number list	Prints groups stored in the autodialer.
Delayed command list	Prints the delayed commands.
SecureMail box list	SecureMail boxes with owners' names.
SecureMail reception message	Notifies mailbox owners of SecureMail receptions.
Confirmation report	Transmit Confirmation Report (TCR) or Receive Confirmation Report (RCR); User selectable on/off.
Activity journal	Prints a cumulative total of the last about 125 transmissions and/or receptions; user selectable as manual or automatic.
Cover page	Transmit cover page showing date, receiver's and sender's names, and a 40-character user-programmable message.
Batch transmission box list	Batch transmission boxes stored remote fax number and transmit starting time.
Batch transmission file list	Print the files number list of documents stored in the batch transmission box.
F-code box list	List of F-code boxes stored in fax machine.
F-code reception message	Notifies of F-code box receptions.
F-code box file list	Print the box and files number list of documents stored in the F-code box.
Supplies order sheet	The order sheet print automatically, when the toner or drum cartridge must be replace.
Junk mail protect list	List of receiving block number.
Power failure report	Prints if any documents in memory were erased due to power failure.
Check message	Prints if communication error occurs; accompanied by audible alarm.
T.30 monitor list	Available

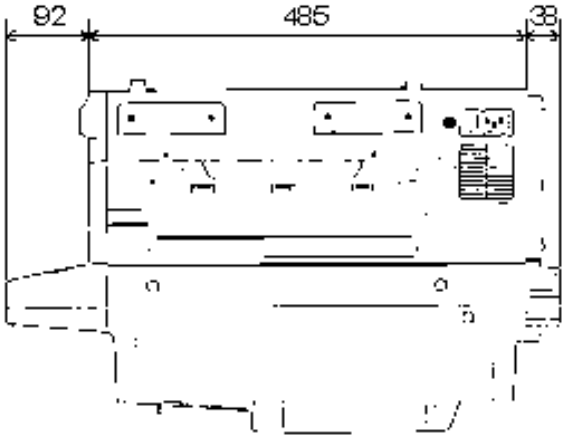
1.5. Supply Yields

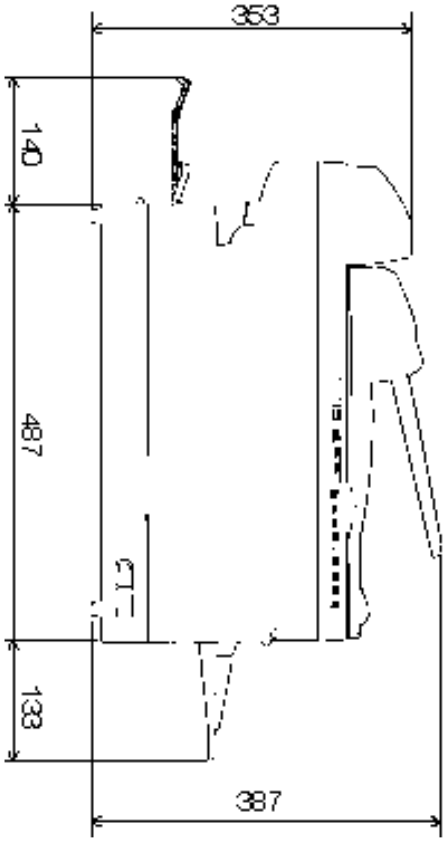
Item	Specifications / Comments
Drum cartridge	10000 pages
Toner cartridge	6000 pages Based on A4-sized sheets, 5 % document coverage and continuos printing.
Transfer roller	30000 pages
Fuser unit	60000 pages
Stamp	30000 times

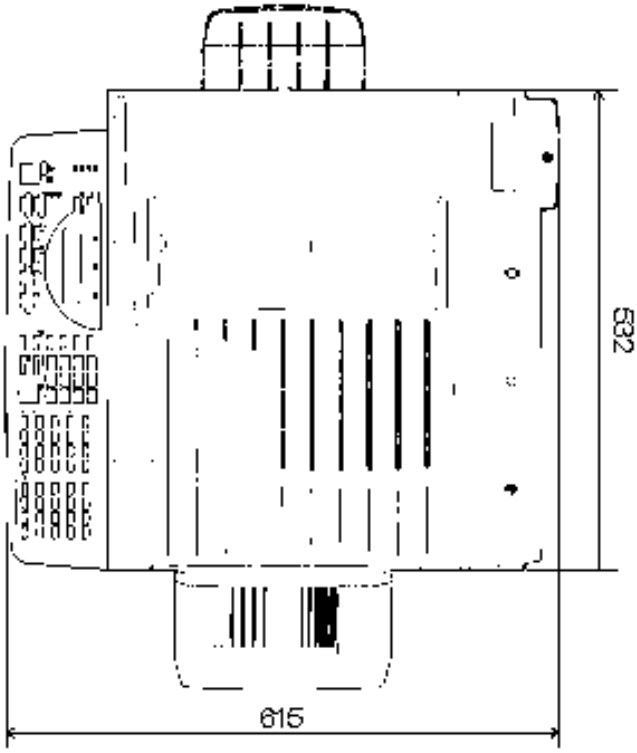
1.6 Option

Item	Specifications / Comments
Paper supply unit	A4 / A5 / A5R / B5; 200 sheets capacity
Handset	Mark IV
Upgrade Memory	Plus 2 MB, Plus 4MB or Plus 8MB
RS-232C interface Kit	Class 1
Second phone line kit	AL-100
Printer Controller Kit	WP-100
Scramble Kit	DS-100

1.7 Dimensions

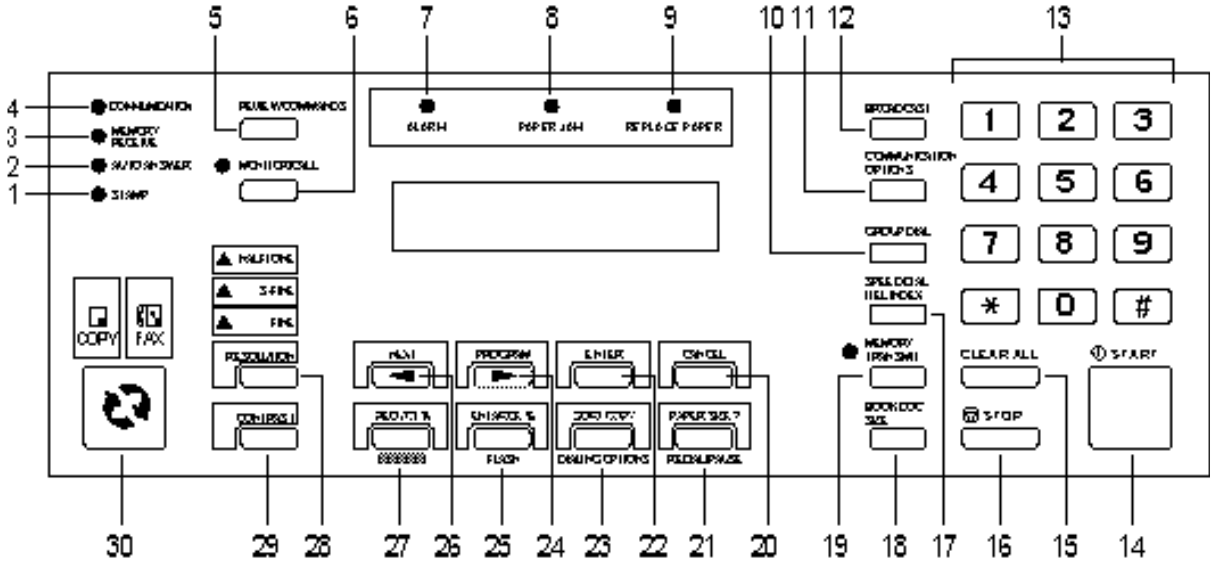






Dimension in mm

1.8 Keypad layout



Here is a brief description of the keys on your fax machine and what they do, as well as a look at your machine's indicator lights and their meanings.

1. **STAMP light** — If glowing, indicates the transmission confirmation stamp feature (see page 2.6) is on.
2. **AUTO ANSWER light** — You can select which mode your fax machine uses to handle incoming calls: answering automatically as a fax machine (*Fax Ready* mode) or waiting for the user to pick up the optional handset (*Tel Ready* mode). If the **AUTO ANSWER** light is glowing, your fax machine is in auto-answer mode.
3. **MEMORY RECEIVE light** — If glowing, indicates your fax machine is receiving an incoming fax document into the machine's electronic memory.
4. **COMMUNICATION light** — If glowing, advises you the fax machine is performing communication.
5. **REVIEW COMMANDS** — Press to review or alter pending fax commands.
6. **MONITOR/CALL** — During on-hook dialling, turns the monitor speaker off or on. When you're sending a fax, activates the *call request* feature.
7. **ALARM light** — If glowing, indicates a problem has occurred during fax communication or your fax machine encounters a problem printing a fax or copy. Check the display or an error report for more information.
8. **PAPER JAM light** — Glows when a printout (received fax message or copy) becomes jammed in your fax machine.
9. **REPLACE PAPER light** — Glows when the paper cassette is empty. See page 1.16 for more details on replacing paper.
10. **GROUP DIAL** — Helps you set up a fax transmission to a call group, a set of fax numbers which will receive the same document in one fax operation.
11. **COMMUNICATION OPTIONS** — Chooses from among several fax options: delayed transmission, SecureMail transmission, relay broadcast, polling, batch transmission or F-Code communication.
12. **BROADCAST** — Helps you set up the process of a fax broadcast (sending the same document to more than one location).
13. **Numeric keypad** — Just like the numeric keys on a regular tone-dialling phone. In addition to dialling phone and fax numbers, they also enter numbers when you're making certain settings.
14. **START** — Begins a manual fax transmission, manual reception or copying.
15. **CLEAR ALL** — Resets copying settings to their defaults.
16. **STOP** — An all-purpose STOP key. Stops the current operation, ejects a document from the automatic document feeder and cancels alarms.

17. **SPEED DIAL/TEL INDEX**— Starts a speed-dialling operation, which you finish by pushing three of the keys on the numeric keypad. Also displays one-touch and speed dial entries sorted alphanumerically, as in a telephone directory.

18. **BOOK DOC SIZE** — Sets the fax for either A4-, B4-, A5R- or B5R-sized documents when you use the flatbed scanner.

19. **MEMORY TRANSMIT** — Selects which transmission mode your fax uses, whether from memory or from the document feeder. If the light next to this key is glowing, your fax will scan documents into memory before trying to send them. Otherwise, your fax will transmit straight from the feeder, which is slower and also prevents others in your office from using the fax until your communication is absolutely complete. (When you use the flatbed scanner, the machine always uses memory transmission).

20. **CANCEL** — Press this key to delete characters on the LCD and cancel commands you have entered into the machine.

21. *In Fax mode:*
REDIAL/PAUSE — *Redials* the last number you dialled. In certain operations, it also produces a special *pause* character which can be useful during the dialling of long-distance numbers.
Or, in Copy mode:
PAPER SIZE ? — Selects the printout paper you want to use.

22. **ENTER** — Much as **STOP** is a "Whoa!" key, **ENTER** is a "Go!" key. It confirms user settings, begins operations and moves through command levels.

23. *In Fax mode:*
DIALLING OPTIONS — Press this to insert special symbols into telephone numbers (see page 2.7).
Or, in Copy mode:
SORT COPY — Press this key to toggle the sorting of printed copies.

24. *In Fax mode:*
►/**PROGRAM** — Scrolls (moves) through features and command options as displayed on the LCD.
Or, in Copy mode:
Press to increase the reduction or enlargement rate at 1% intervals.

25. *In Fax mode:*
FLASH — Lets you quickly disconnect a call and go right to the next one without having to hang up the handset.
Or, in Copy mode:
ENLARGE % — Press this key to choose one of several fixed copy enlargement rates. (See page 1.37 for more information.)

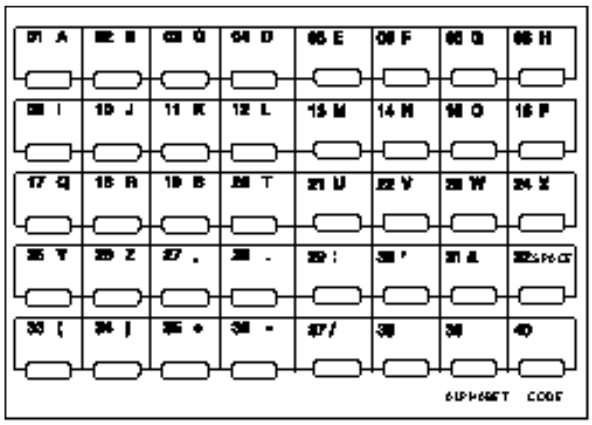
26. *In Fax mode:*
◄ — Scrolls (moves) through features and command options as displayed on the LCD.
In Fax mode, while scanning a document:
NEXT — Press to tell your machine to scan one or more additional documents after the current scanning ends.
In Copy mode:
Press to decrease the reduction or enlargement rate at 1% interval.

27. *In Fax mode:*
Blue key — Press to access the other telephone networks such as Cable & Wireless (Mercury).
Or, in Copy mode:
REDUCT % — Press this key to choose one of several pre-set copy reduction rates. (See page 1.37 for more information.)

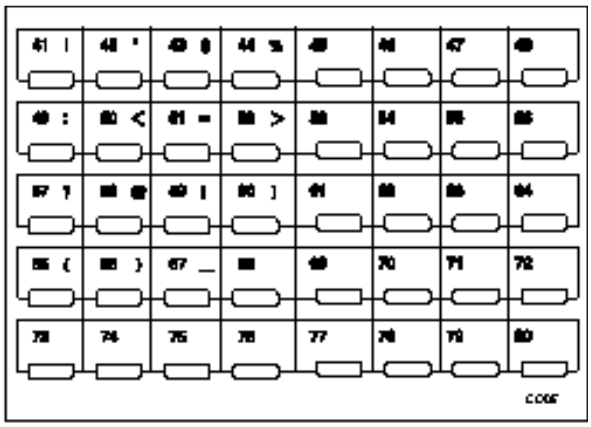
28. **RESOLUTION** —
In Fax mode:
Press to toggle among the three resolution modes and 64-level greyscale.
In Copy mode:
Press to select either superfine or 128-level greyscale mode.

29. **CONTRAST** — Press to enter the contrast setting mode. To change the contrast level, press ◄ or ► keys.

30. **COPY/FAX** — Press this key to toggle between Fax mode or Copy mode.



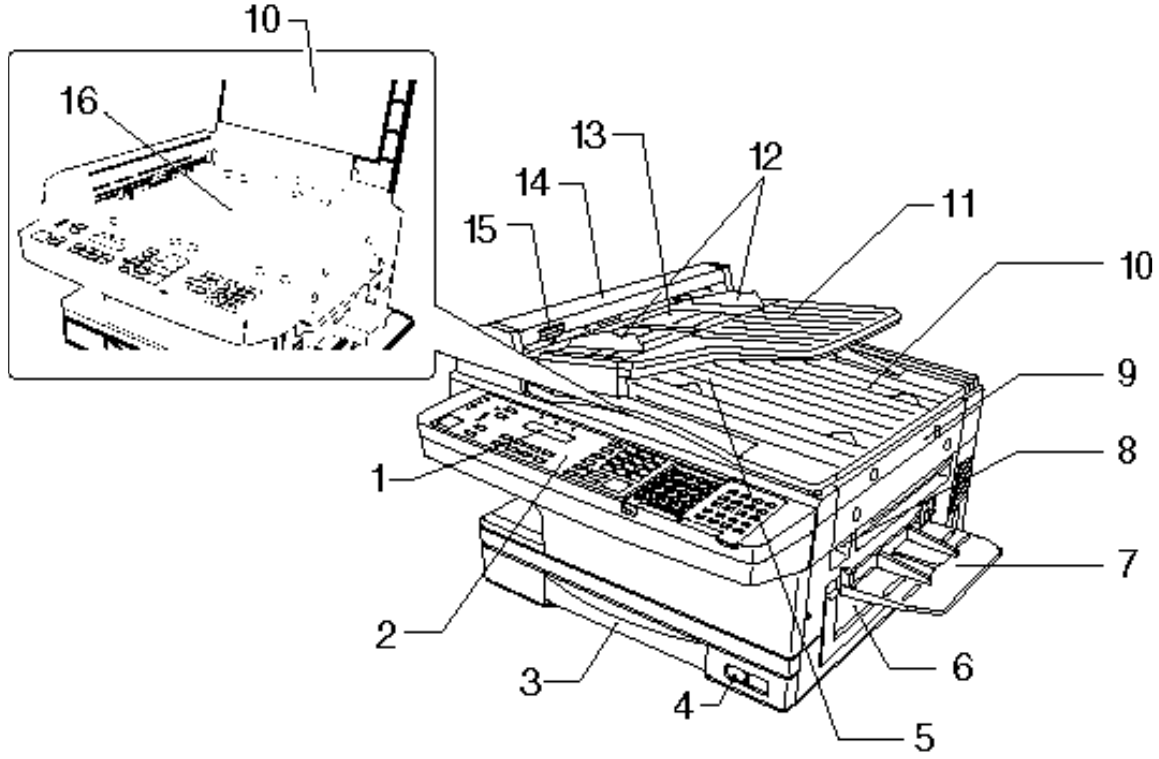
Flip Tab A



Flip Tab B

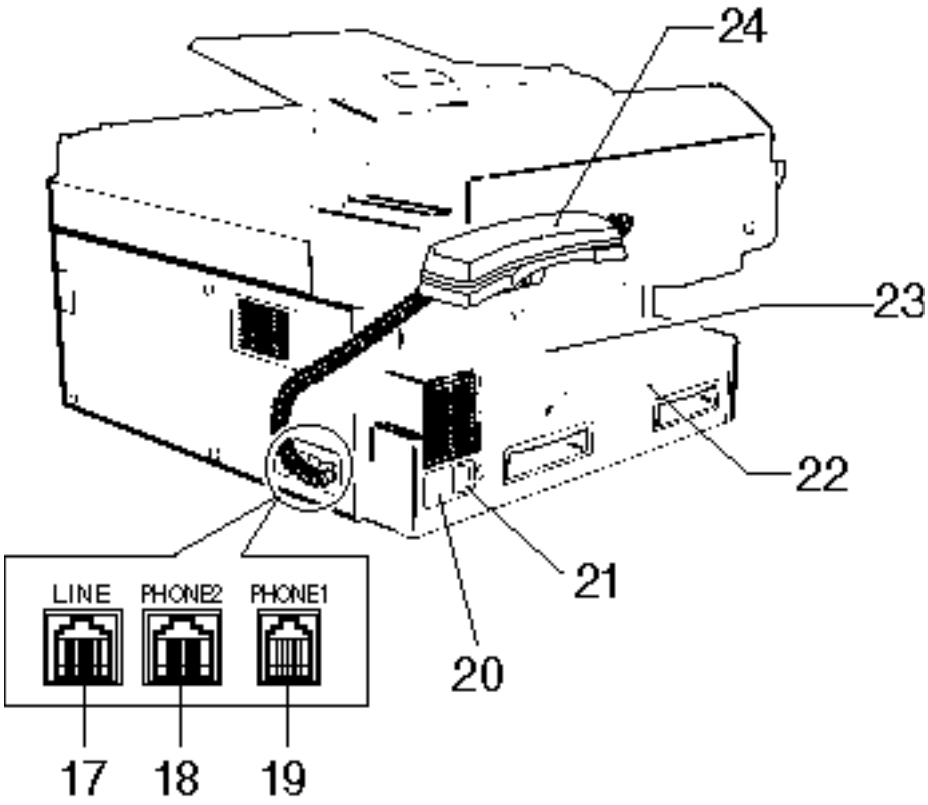
31. One-Touch Keys — The keys labelled **01-40** (or **41-80**, if you're using fliptab **B**) offer one-touch dialling convenience. You also can use the keys labelled **73-80**, if you're using fliptab **B**, for programmable functions: this lets you teach your machine an advanced multi-step function just once, then recall the function at any time by pressing one of these keys.

1.9 Front view



1. **Liquid crystal display (LCD)** — The display (2-line × 20-character) which shows the machine's status and lets you see what you're entering during various operations
2. **Control Panel** — The keys you use to operate your fax machine. (See pages 1.6–1.7 for more details.)
3. **Paper cassette** — One of two locations where you put the recording paper (the Multipurpose tray is the other). Holds up to 400 sheets, either A4, B4, A5R or B5R-sized paper.
4. **Recording paper level indicator** — Shows the level of the current paper supply without requiring you to open the paper cassette.
5. **Original document exit** — Where the original document comes out.
6. **Side cover** — Open to fixing printout jams.
7. **Multipurpose tray** — One of two locations where you put the recording paper (the paper cassette is the other). Holds only one sheet, either A4, A5, A5R or B5 size paper.
8. **Top cover release** — Pull up on this to open the top cover.
9. **Top cover** — Opens to provide access for changing the toner and drum cartridge (or occasionally, fixing printout jams).
10. **Book cover** — Opens to scan an original document using the flatbed scanner (fbs).
11. **Document tray** — Supports the original document for straighter feeding into the automatic document feeder (adf).
12. **Document guides** — You can adjust these for the width of the original document so it will feed properly into the adf.
13. **Automatic document feeder (ADF)** — The slot into which you place your original document for faxing or copying. It holds up to 50 sheets of A4-sized paper, 25 pages of B4-sized paper or 15 pages of A3-sized paper.
14. **Scanner cover** — Opens to provide access, during occasional jams, to an original document you have put into the adf.
15. **Scanner cover release** — Pull up on this to open the scanner cover.
16. **Flatbed scanner (FBS)** — Makes it possible for you to fax or copy objects and even irregularly shaped sheets, just as on a conventional copier.

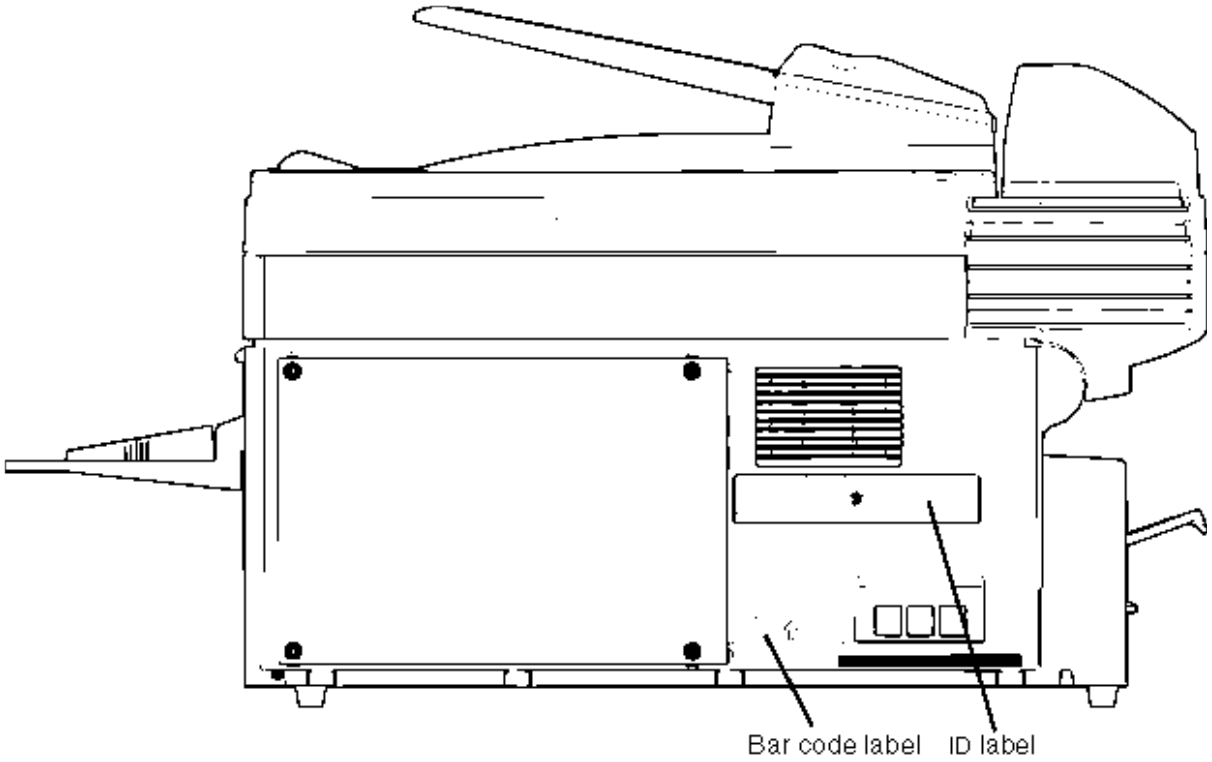
1.10 Rear view



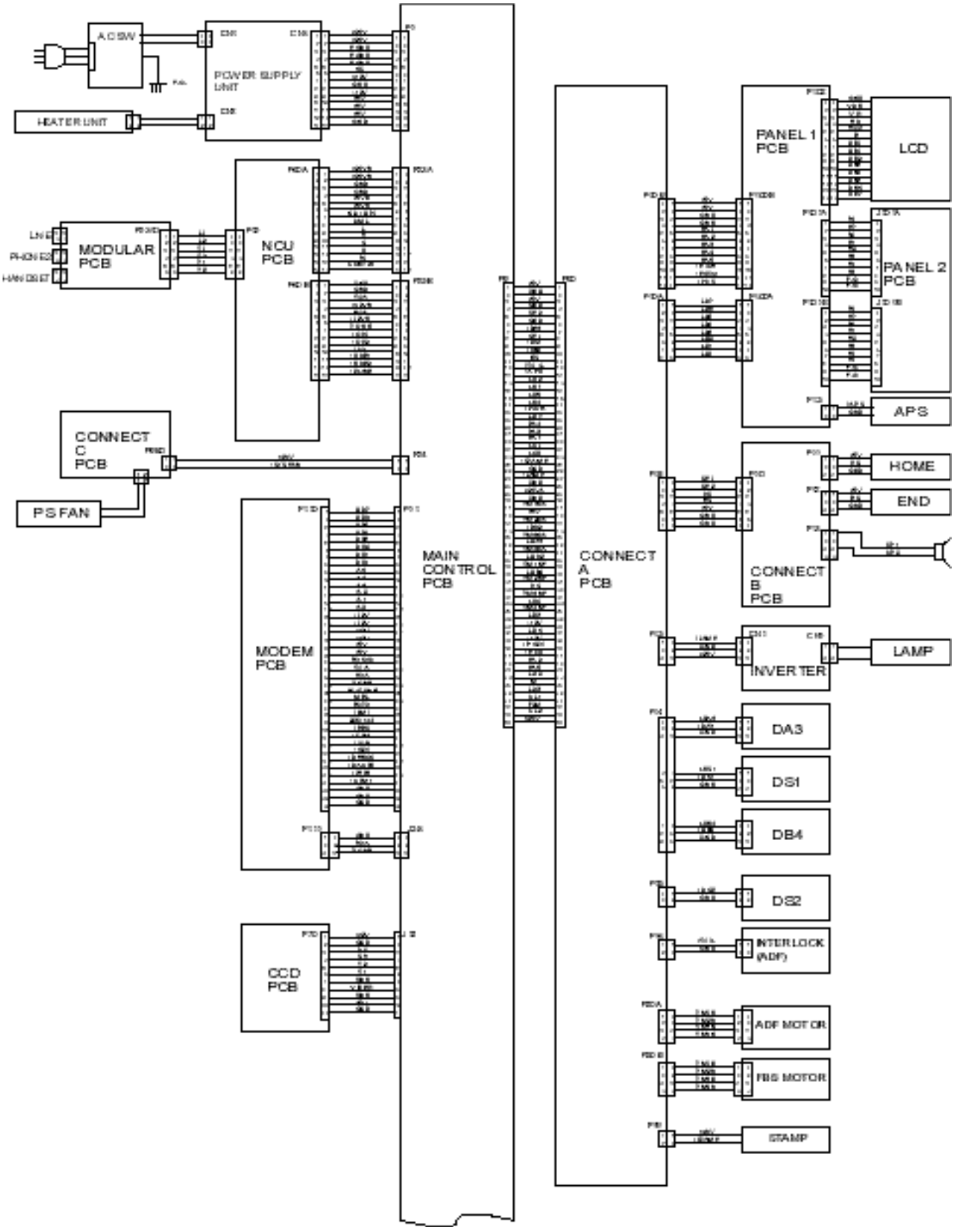
17. **LINE jack** — Where you plug in the telephone line cord. (The other end of the cord plugs into a wall telephone jack.)
18. **PHONE2 jack** — If you connect a second telephone to your machine, this is where you plug in the cord.
19. **PHONE1 jack** — Where you plug in the optional handset.
20. **AC power socket jack** — Where you plug in the AC power cord.
21. **AC power switch** — Turns your fax machine on and off.
22. **Paper tray** — Holds up the printout (fax or copy) after it emerges.
23. **Printed document exit** — Where the printout (fax or copy) emerges.
24. **Handset** (*optional*) — Used for voice communication.

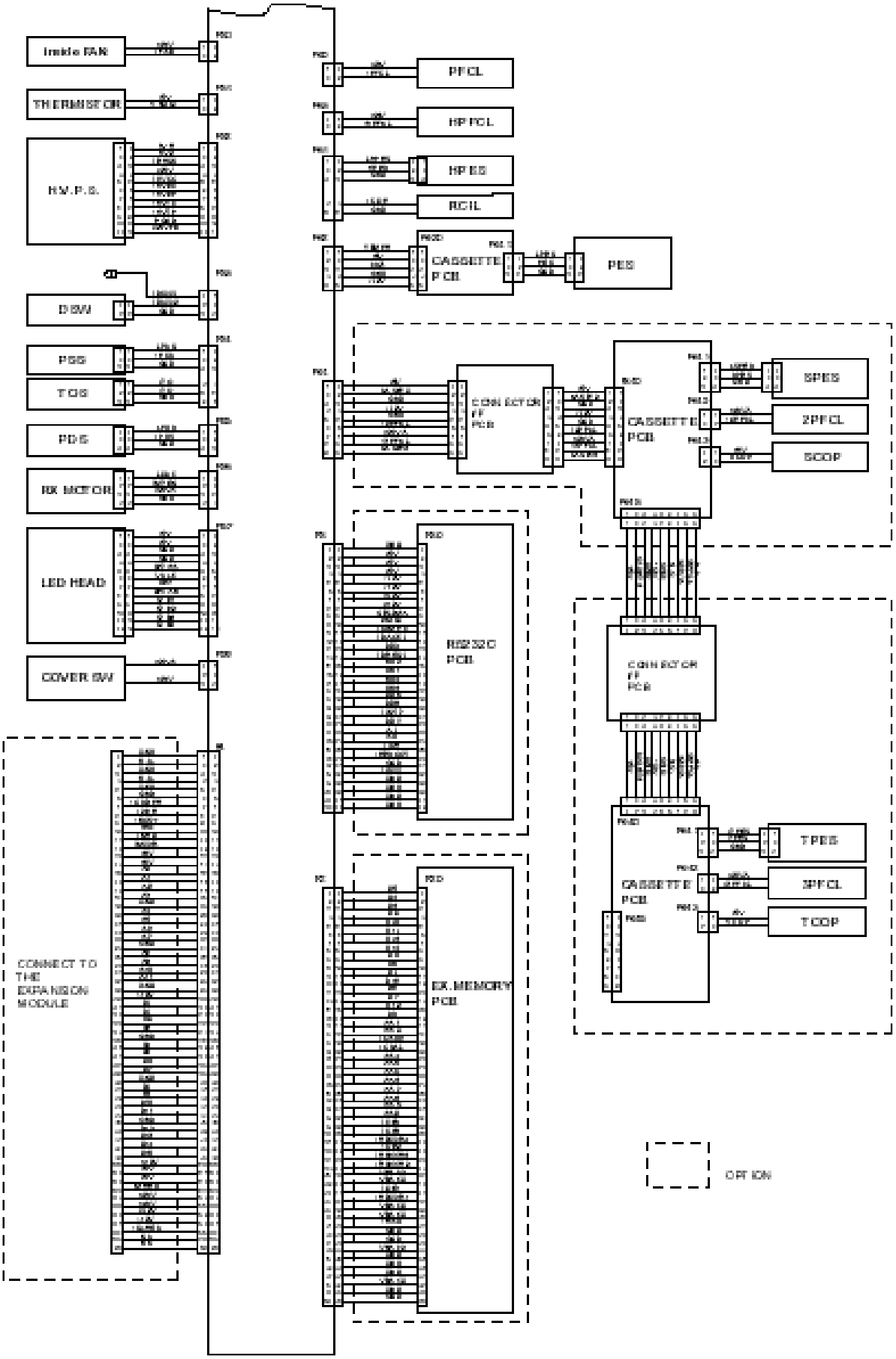
1.11 ID Label Specification

1.12 Labels location



Section2
Machine Composition
2.1 Interconnect Block Diagram




Inside FAN
THERMISTOR
H.V.P.S.
DSW
PSS
TOS
PDS
RX MOTOR
LED HEAD
COVER SW
CONNECT TO THE EXPANSION MODULE
PFCL
HPFCL
HPES
RCIL
CASSETTE PCB
PES
CONNECTOR PCB
CASSETTE PCB
SPES
2PFCL
SCOP
RS232C PCB
CONNECTOR PCB
CASSETTE PCB
TPES
3PFCL
TCOP
EX.MEMORY PCB
OPTION

2.2 Main Control PCB

The main control PCB controls the operations of all machine functions.

Jumper JP4 on the main control PCB is used for battery back-up of the SRAM. All user programmed data and internal memory switch settings are held in SRAM. Removing JP4 will initialise the SRAM. If the power is turned off, the battery will provide up to five years of back-up when fully charged.

Jumper JP5 on the main control PCB is used for battery back-up of the DRAM. Removing JP5 will initialise the DRAM. If the power is turned off, the battery will provide up to 100 hours of back-up when fully charged.

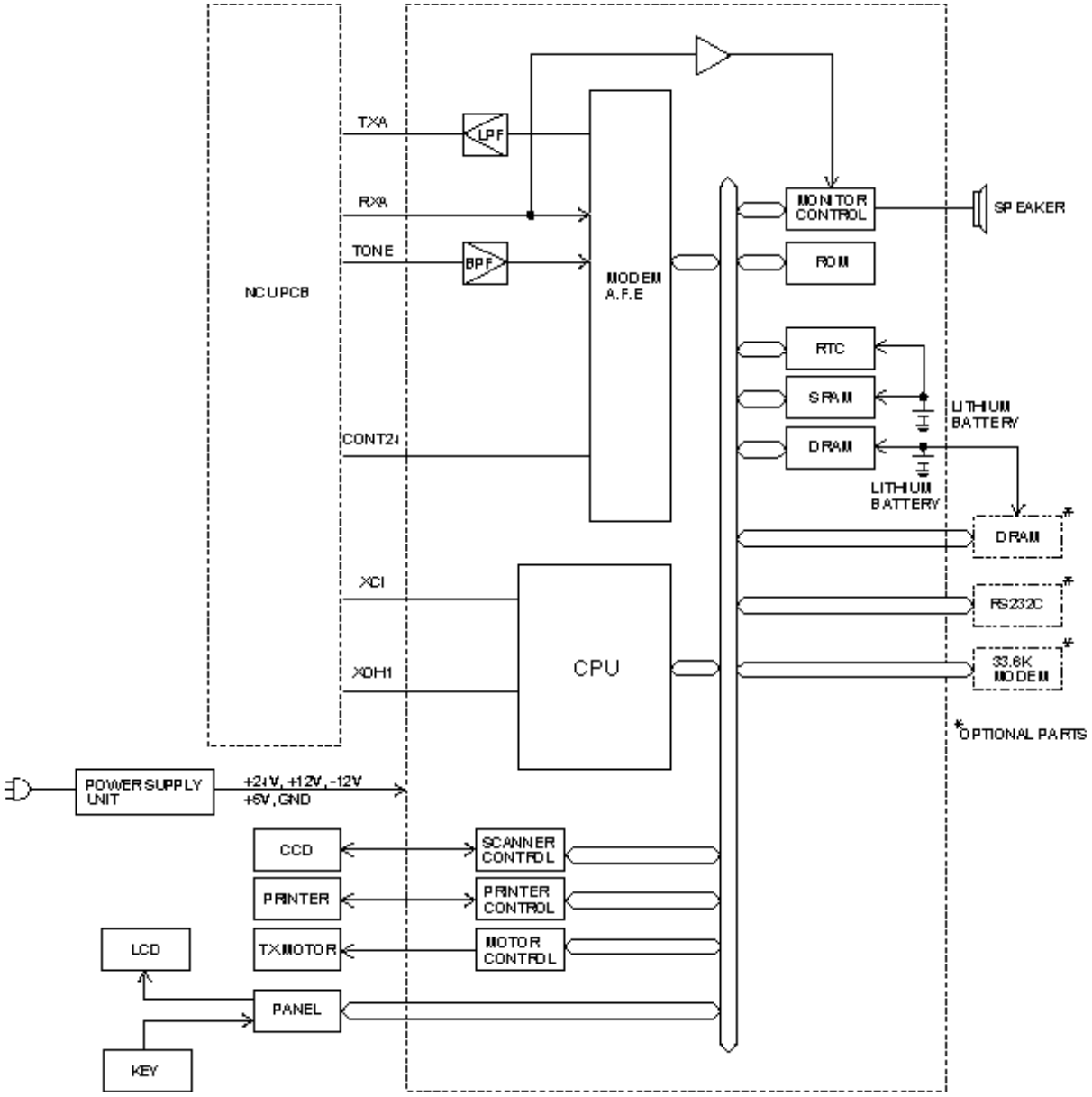
NOTE: JP4, JP5 should remain in the "ON" position at all times.

Lithium Battery Precautions:

There is a danger of an explosion if the battery is installed incorrectly. Replace the battery with the equivalent type. Discard used batteries according to the battery manufacturer's instructions.

OKI does not recommend the independent replacement of this battery. The battery is sold only as a component part of the main control PCB and cannot be purchased separately from OKI.

Il y a un danger d'explosion s'il y a un remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformement aux instructions du fabricant.



Main control PCB block diagram

The main control unit controls all function of the machine. Its component portions are:

Fax Engine

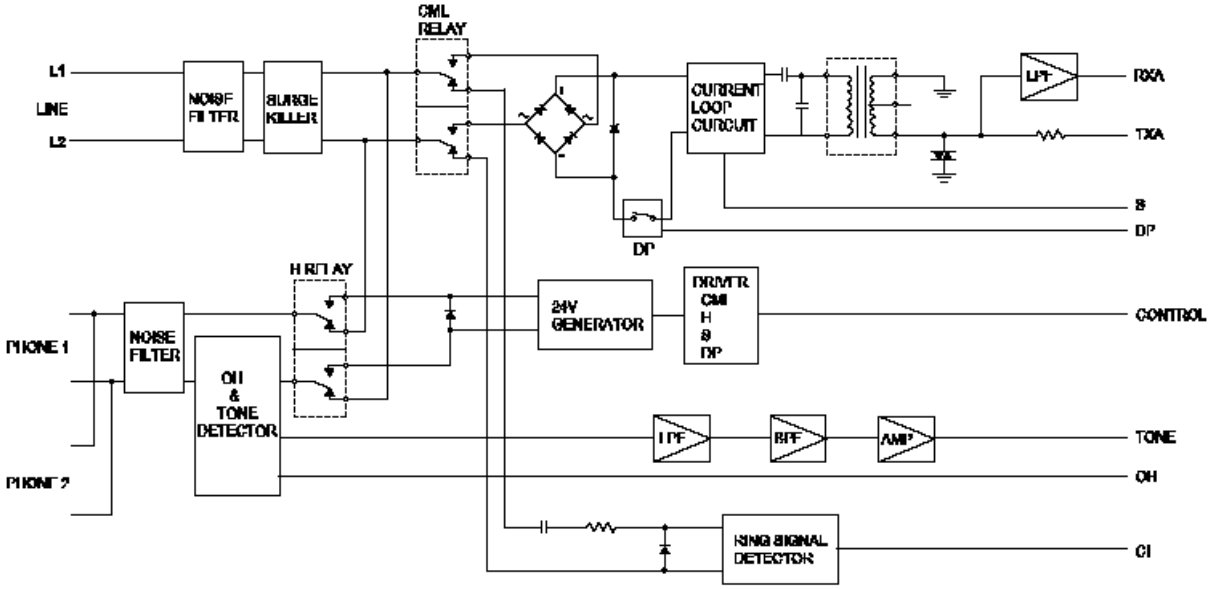
CPU – The CPU is the core of the control section. It controls all other sections.
Scanner Control – Processes the signal from the Charge Coupled Device (CCD) such as magnification, reduction, and halftone.
Modem – The modem facilitates modulation and demodulation of data for far communication.

Memory (FLASH MEMORY, SRAM, DRAM)

FLASH MEMORY – The FLASH MEMORY contains all program instructions for unit operation.
SRAM – The SRAM, which is backed-up by a lithium battery is used to store user programmed information.
DRAM – The DRAM is used for buffer, which is backed-up by a battery is used to store memorised documents.

2.3 NCU PCB

The NCU PCB provides the connection to the telephone line. It consists of the interface circuit, dial pulse generator, ring signal detection and telephone control circuit.



NCU PCB block diagram

Major components of the NCU

CML relay

Connects the telephone line to the phone or fax.

S relay

Used to send dial pulse signals in pulse dialling.

H relay

Connects the tel1 and tel2 line to the fax machine.

Off Hook detector

Detects the Off-hook condition of the handset.

Voltage circuit

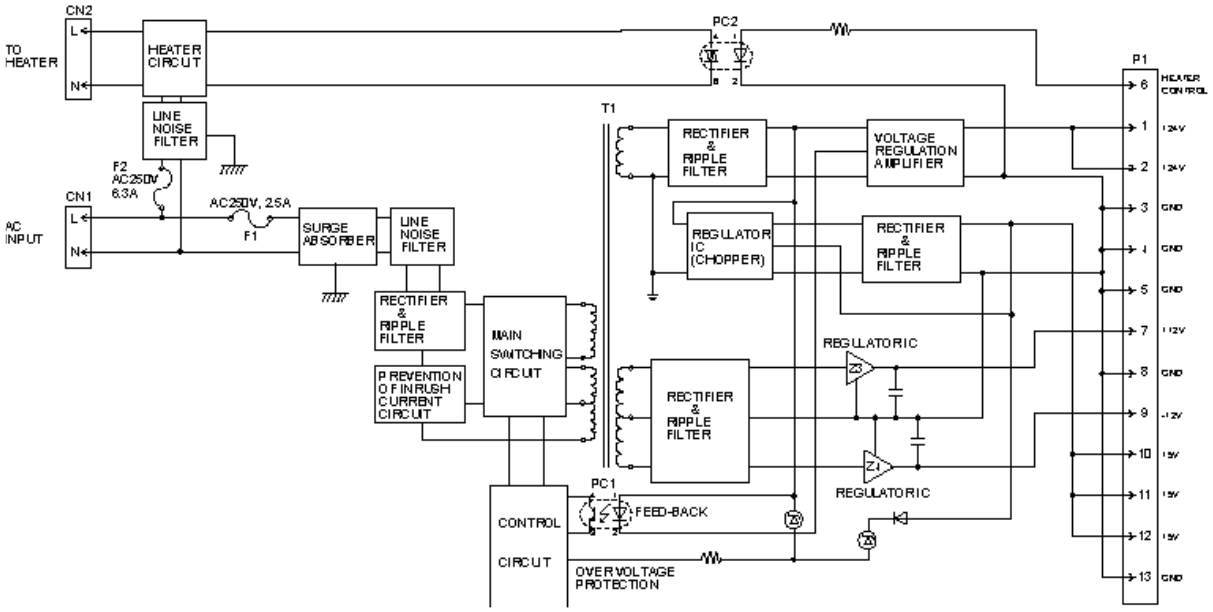
Supplies 24 volt to the H relay for on-hook/off-hook detection for the fax unit.

Ring signal detector

Used to detect the ring signal.

2.4 Power Supply Unit (PSU)

The power supply unit receives the input line voltage and currents it to output voltages of +5 VDC, +24 VDC, +12 VDC, and -12 VDC.
The heater circuit controls output voltage to the fuser heater according to instructions received from the heater control circuit.
If an over-current is sensed in the secondary circuit, power is interrupted.



Power supply unit block diagram

The power supply unit has two output connectors.
The following table shows the connector outputs:

CN2 – to the Fuser Heater

Pin No.	1	2
Output	L	N

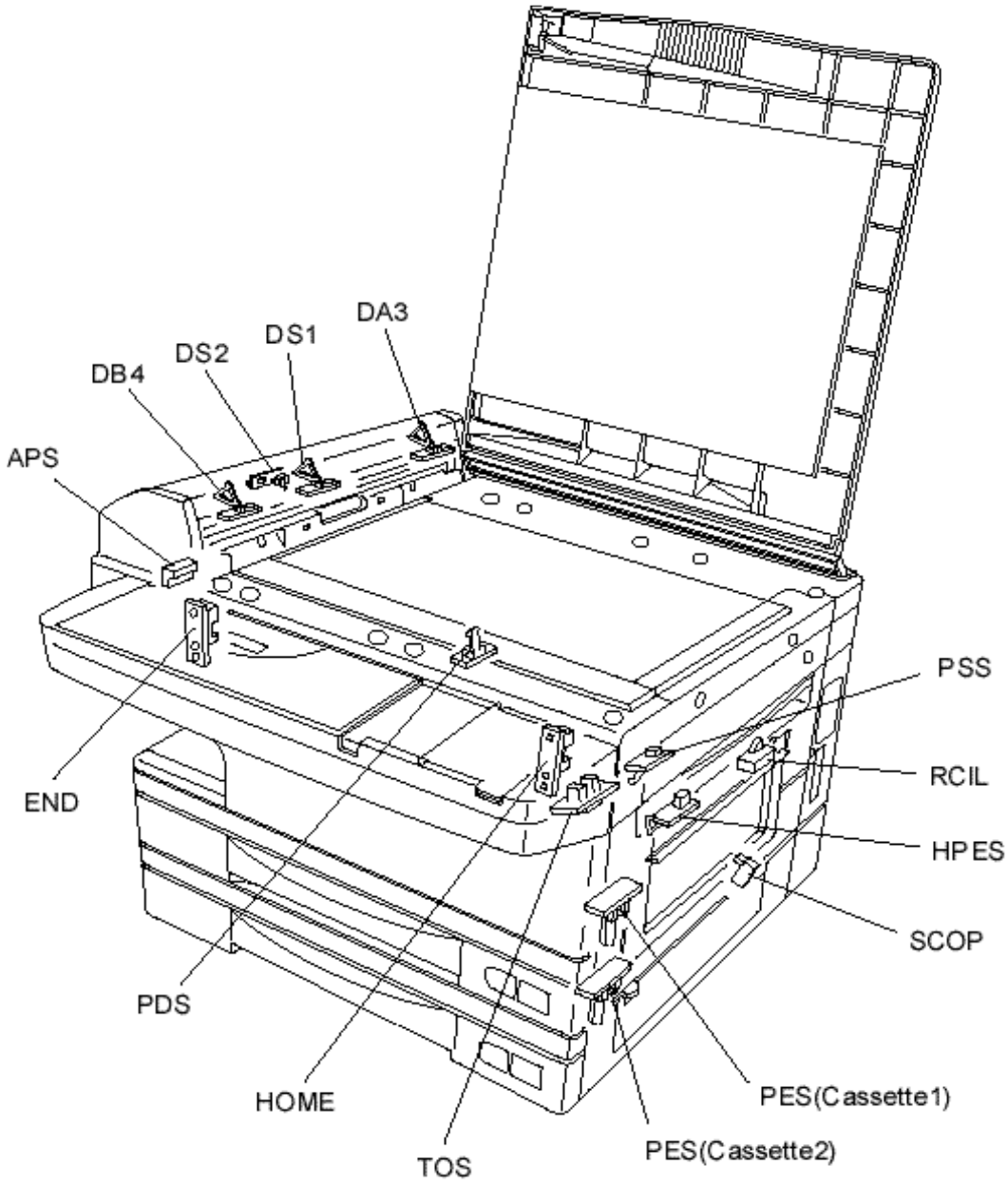
P1 – to the Main Control PCB.

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Output voltage	+24V		GND			HC +24V	+12V	GND	-12V	+5V			GND

2.5 Sensors

2.5.1 Sensor Locations

The following illustration shows the relative positions of the machine's sensors.

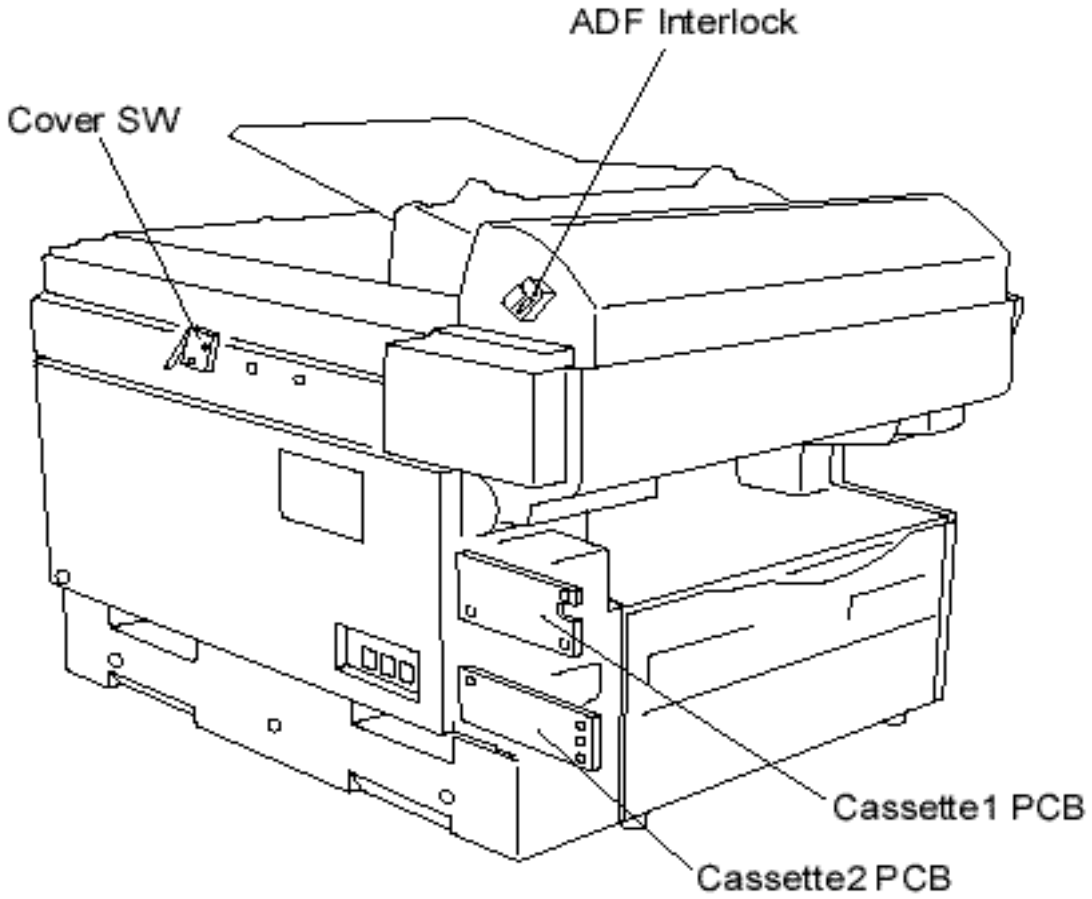


2.5.2 Sensor Descriptions

The following table gives a brief description of each sensor and its function.

Code	Name	Detects	logic	Sensor Type
DB4	Document Sensor B4	Document size (B4)	Detection :L Not detection :H	Photo interrupter
DS2	Document Sensor 2	Leading and trailing edge of document	Detection :L Not detection :H	Micro switch
DS1	Document Sensor 1	Presence of document in feeder	Detection :L Not detection :H	Photo interrupter
DA3	Document Sensor A3	Document size (A3)	Detection :L Not detection :H	Photo interrupter
HOME	Mirror carriage home position sensor	Mirror carriage position	Detection :H Not detection :L	Photo interrupter
END	Mirror carriage end position sensor	Mirror carriage position	Detection :H Not detection :L	Photo interrupter
APS	ADF Permit Sensor	Book cover quite close or not	Quite close :L Not close :H	Magnet sensor
PSS	Paper Set Sensor	Detects paper feeding out of cassette/tray.	Detection: L Not detection: H	Photo interrupter

Code	Name	Functions	logic	Sensor Type
PDS	Paper Discharge Sensor	Detects paper pass at paper exit.	Detection: L Not detection: H	Photo interrupter
HPES	Hand Paper Empty Sensor	Detects presence of recording paper in multipurpose tray	Detection: L Not detection: H	Photo interrupter
PES	Paper Empty Sensor	Detects presence of recording paper in cassette	No paper: H Paper in: L	Photo interrupter
TOS	TOner Sensor	Detects the toner empty and toner cartridge set.	Analogue signal	Photo interrupter
RCIL	Rear cover interlock	Detects side cover open or close	Open: H Close: L	Micro switch
SCOP	Second cover OPen sensor	Detects second cassette's side cover open or close	Open: H Close: L	Micro switch



Code	Name	Detects				logic		Sensor Type	
ADF Inter-lock	Interlock Switch (ADF)	Scanner cover open or close				Open :H Close :L		Micro switch	
COVER-SW	Cover switch	Detects top cover open or close				Open: DC24V OFF Close: DC24V ON		Micro switch	
		Detects recording paper size (P): Portrait (L): Landscape				ON :L ("O") OFF:H ("–")		Tact switch	
	Cassette 1 PCB Cassette 2 PCB	Cassette Open	B4 (P) 10.1'x14' 257x364	A4 (P) 8.3'x11.7' 210x297	B5 (L) 10.1'x7.2' 257x182	A5 (L) 8.3'x5.7' 210x146	LTR (P) 8.5'x11.7' 216x297	LGL (P) 8.5'x14' 216x356	F4 (P) 8.3'x13' 210x330
S5	Paper size switch 1	–	O	–	–	O	O	–	O
S6	Paper size switch 2	–	–	O	–	O	–	O	O
S7	Paper size switch 3	–	–	–	O	–	O	–	O

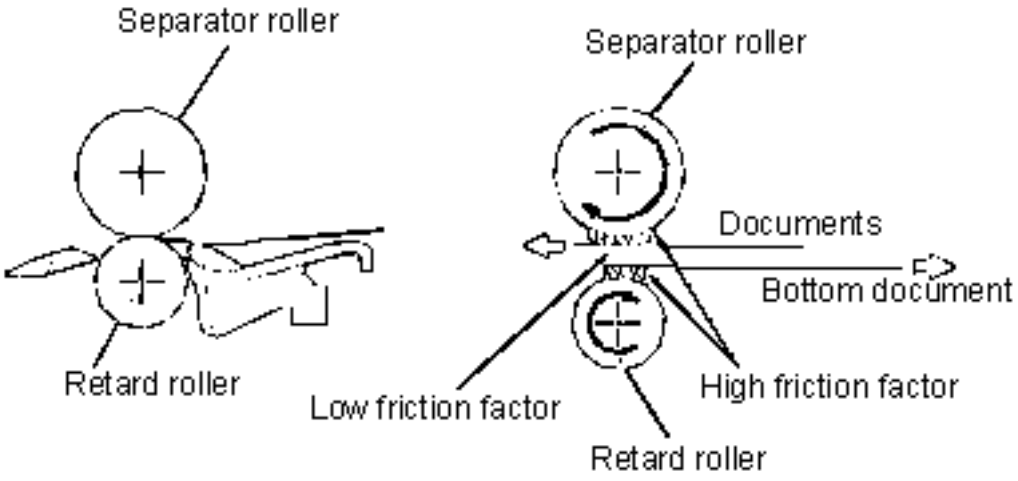
2.6 Document Scanning Sequence

2.6.1 Document Detection

When a document is placed into the document feeder, Document Sensor 1 (DS1) is activated and you will hear the short beep.

2.6.2 Document Separation

Document separation is the process that allows a multi-page document to go through the scanner one page at a time. Separation occurs through the action of the separator roller and retard roller.
As shows in the illustrations, documents in the feeder are pressed against the separator roller. The bottom document is separated from the remaining documents by the friction of the retard roller.



2.6.3 Document Transport

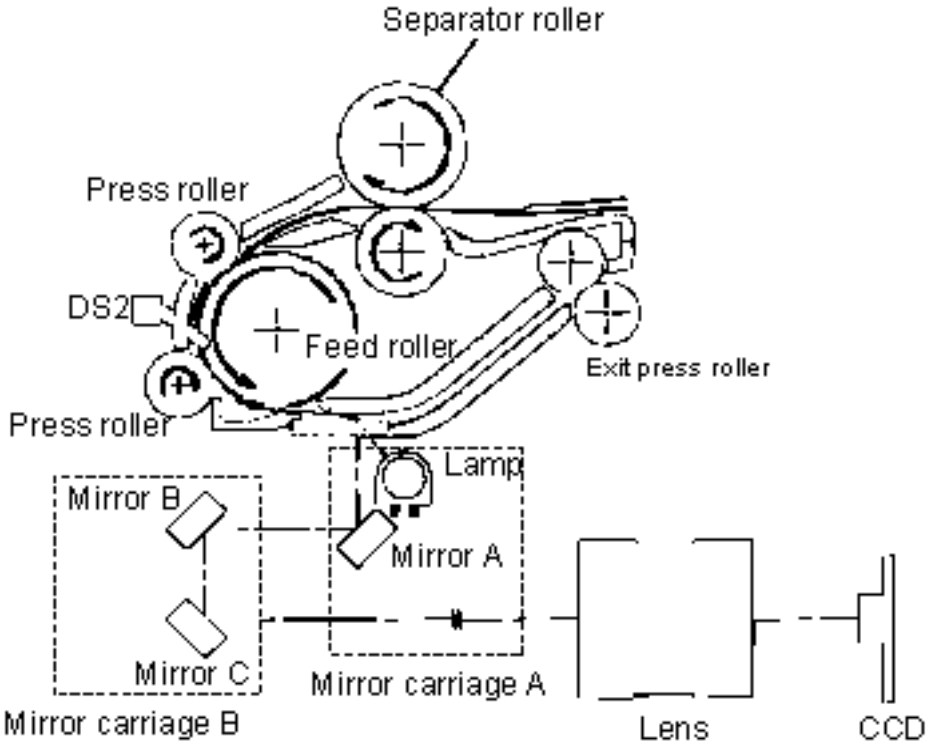
Following document separation, the feed roller causes the document to advance. As it advances, the leading edge of the document activates the Document Sensor 2 (DS2) sensor. Once DS2 is activated, the feed roller continues to rotate until the document reaches the scan wait position. The machine uses the distance from DS2 to the scan wait position and the diameter of the feed roller to determine the number of rotations necessary to feed the document to the scan wait position.

2.6.4 Document Scanning

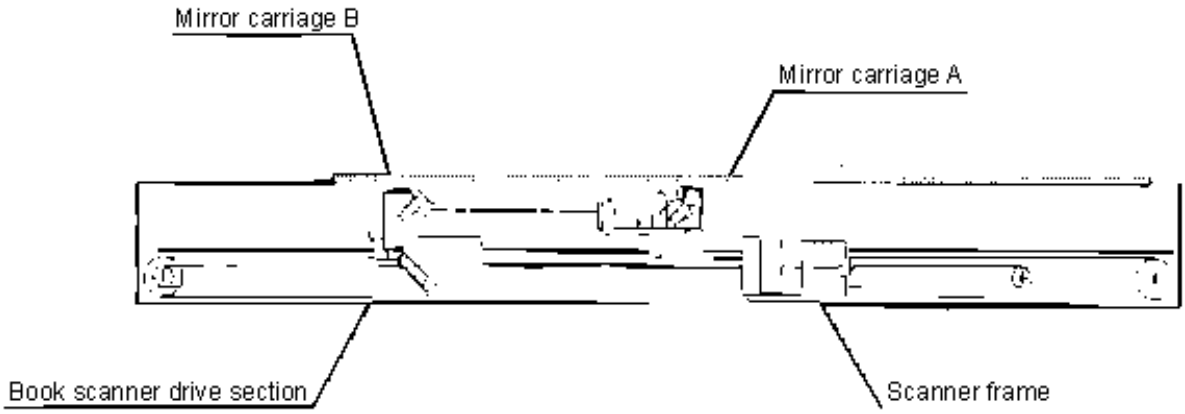
When the document reaches the scan wait position, the machine waits for the next command. It will start scanning the document when either the start or copy key is pressed. The light from the scanner lamp strikes the face of the document and is reflected into the lens through mirrors A, B, and C. In case the light intensity along the length of the scanner lamp is not uniform, shading compensation is provided to ensure even illumination.

As the reflected image passes through the lens, it is focused onto the charged coupled device(CCD). The CCD then converts the dark and light areas of the image into electrical impulses, or image data. Circuits on the main control PCB encode the image data and send it to the modem where it is modulated. The modulated signal is then placed onto the telephone line by the NCU.

When DS2 detects the trailing edge of the document, the image signal output is turned off. The scanner continues to remain active for a few more seconds in case there is another document to follow.



Document scanning in ADF section



Document scanning in FBS section

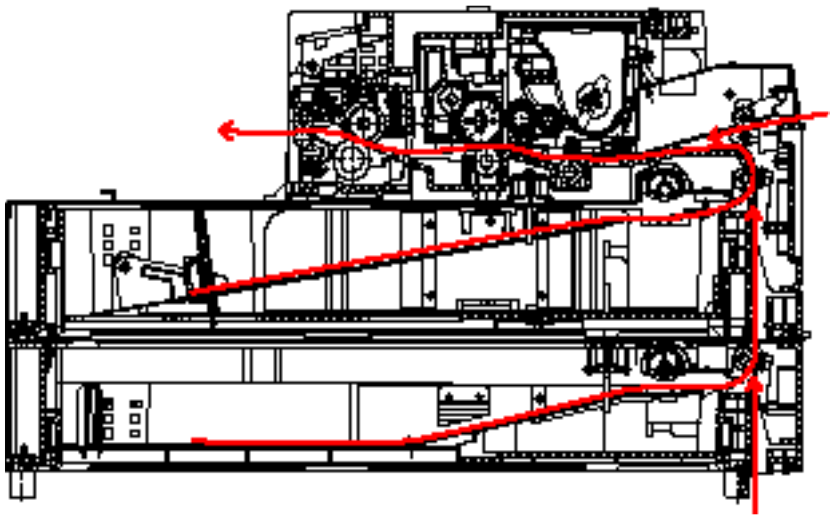
2.6.5 Document Discharge

The scanned document is discharged through the document exit by the exit roller

2.7 Recording Section

2.7.1 Recording Paper Feed Path

A sheet of the recording paper is separated from the remaining paper by the friction of the pickup roller.
The paper is moved along the paper guide until it reaches the platen roller. Is then fed by the rotation of the platen roller.

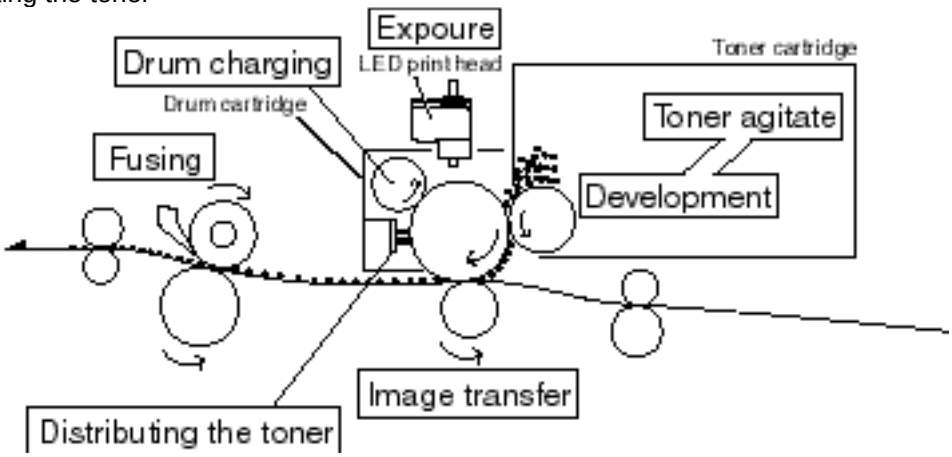


2.8 Image Processing

Incoming data is received from the telephone line by the NCU and sent to the main control PCB. The modem, located on the main control PCB, demodulates the data.
The data is then sent to the printer for image processing.

The image processing is roughly divide into the following steps:

1. Drum Charging
2. Drum Exposure
3. Development
4. Image transfer
5. Fusing
6. Distributing the toner



2.8.1 Drum Charge

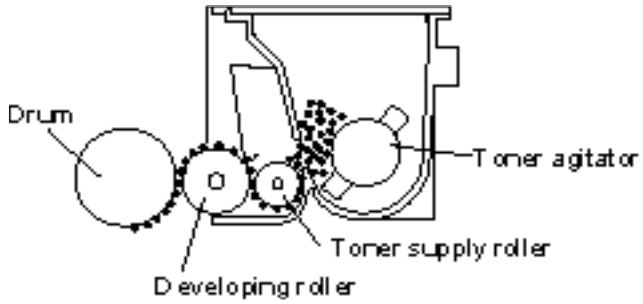
- The Drum is charged with static electricity before LED exposure. The Rotating Charge Brush is used for the charging method.
- The rotating brush charging generate little ozone in the printer. Because the charge is directly given to the Drum, the Drum can be charged by low voltage. At the same time, the Drum can be charged stably and evenly.

2.8.2 Drum Exposure

An invisible static image is made by the light from the LED print head.
The LED print head, located inside the printer cover, closes down over the drum and projects light onto the drum surface. When the document is to be printed, individual elements in the LED print head turn on and expose the drum where ever a dark area should appear in the document.

2.8.3 Development

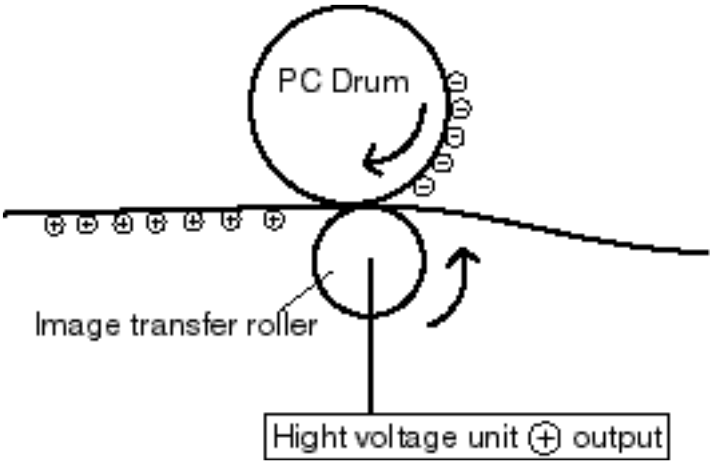
Toner is applied to the invisible static image on the Drum and a toner image is created on the surface.



	Part Name	Function
1	Toner Agitator	Contains toner.
2	Toner supply Roller	Transports the toner to the developing roller.
3	Developing Roller	Carries the toner to the Drum surface for development.
4	Drum	Exposed to LED right to create an invisible image and rotates to carry the developed image to the paper surface.

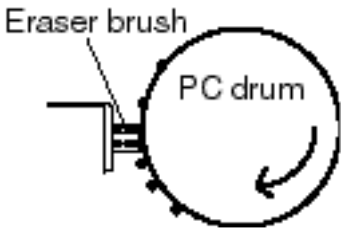
2.8.4 Image Transfer

Image transfer is the process of transferring the toner image created on the Drum in the developing process to paper. We use the Roller Image Transfer instead of the Corona Image Transfer, as the image transfer method. In the Roller Image Transfer, there is little generation of ozone due to corona discharge. Also, there is no blur of toner because the paper is always pressed by the Drum and the Image Transfer Roller.



2.8.5 Residual toner distribute

The residual toner must be removed from the drum. This step does not actually remove the residual toner from the drum surface. Instead, a “Eraser brush” is used to evenly distribute the remaining toner over the drum surface. When the drum surface is charged in preparation for printing the next document the remaining toner is also charged. Any residual toner that is not exposed in the subsequent drum exposure process is attached back onto the developing roller.



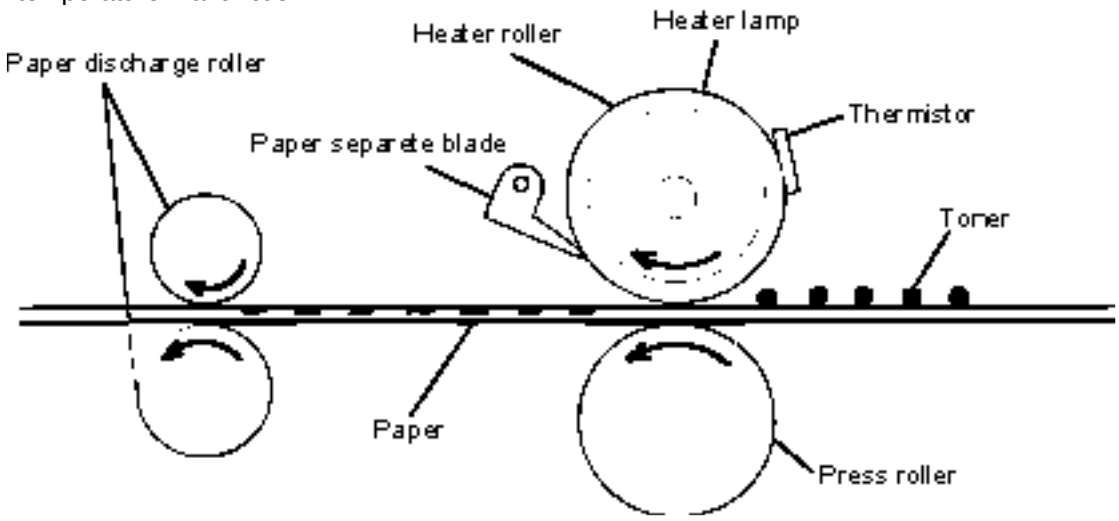
2.8.6 Fusing

An Overview

The toner image transferred on to the paper is securely fixed.
A heat roller system is used as the fusing system. The toner image is fused by Heater Roller heated by the Heater Lamp, and securely fixed by the pressure between the Heater roller and Press rollers.

A Thermistor detects and controls the Heater Roller temperature.

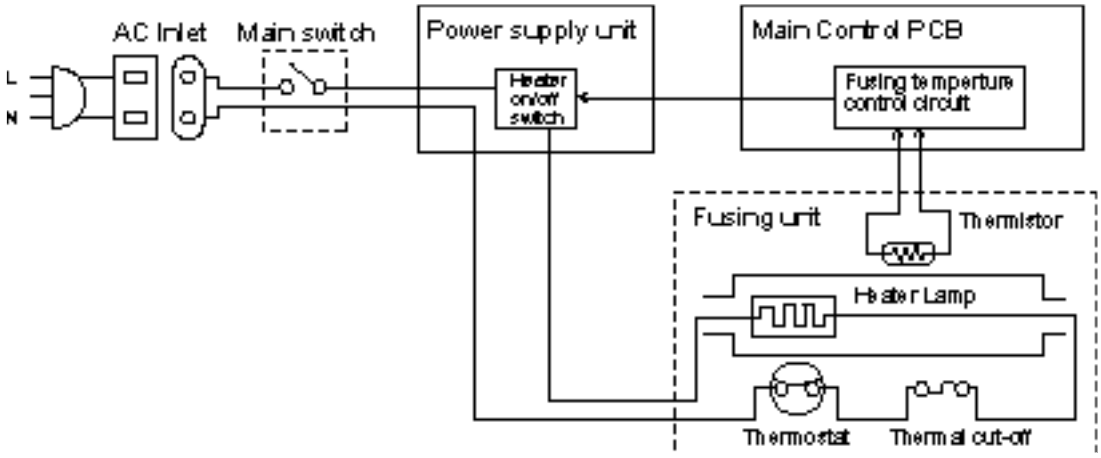
The Thermostat functions when the Heater Lamp is not turned OFF even if the Thermistor detects a high temperature malfunction.



Fusing Temperature Control Circuit

The Thermistor detects the surface temperature of the Heater Roller and inputs that analog voltage into the Main Control PCB. Corresponding to this data, the Heater Lamp ON/OFF signal is output to the Heater ON/OFF switch of the power supply unit, causing the Heater Lamp to turn ON or OFF to control the fusing temperature.

When the Heater Lamp is not turned OFF even if the Thermistor detects a high temperature malfunction, the thermostat shuts down the power to the heater lamp. When the thermostat is malfunction, the thermal cut-off shuts down the power to the heater lamp.



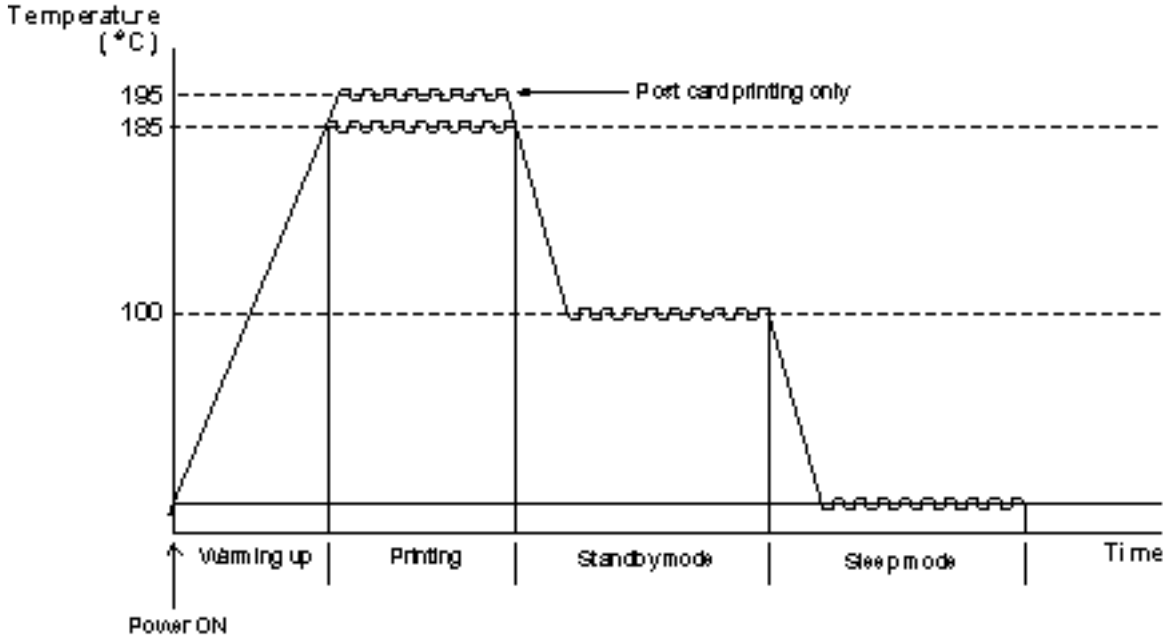
Fusing temperature

1) Warming Up — After the initialization of the printer, warming up of the printer starts and the Heater Lamp turns ON until the temperature of the Heater Roller reaches approx. 185 °C.

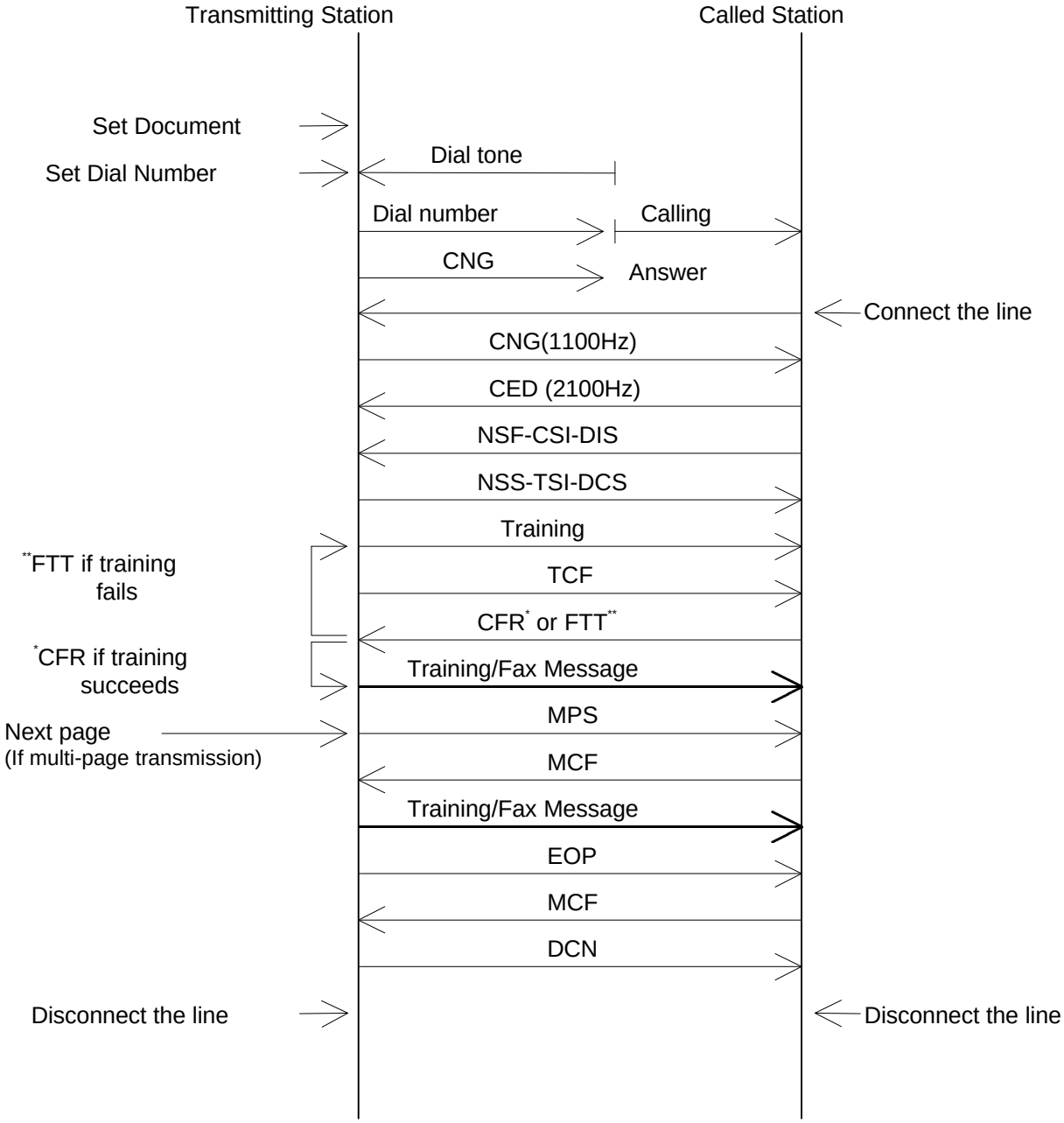
2) Printing — When the printer obtains the printing command from its controller, the Heater Roller is maintained at 185 °C.
After printing, the printer turns to standby mode. The fuser kept at low temperature.

3) Standby mode — The Heater Roller maintained at approx. 100 °C.

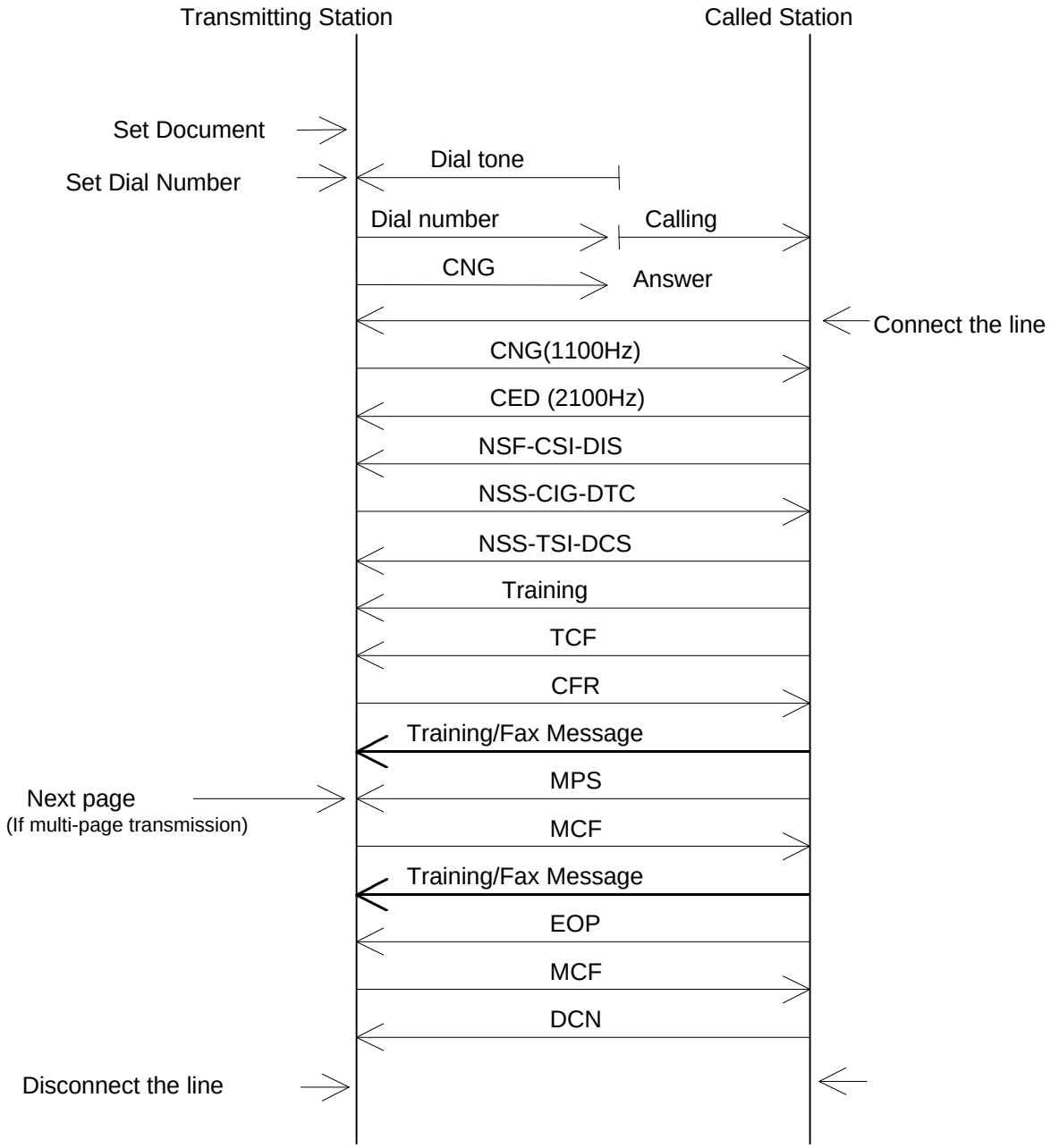
4) Sleep mode — In this mode, saving the power.



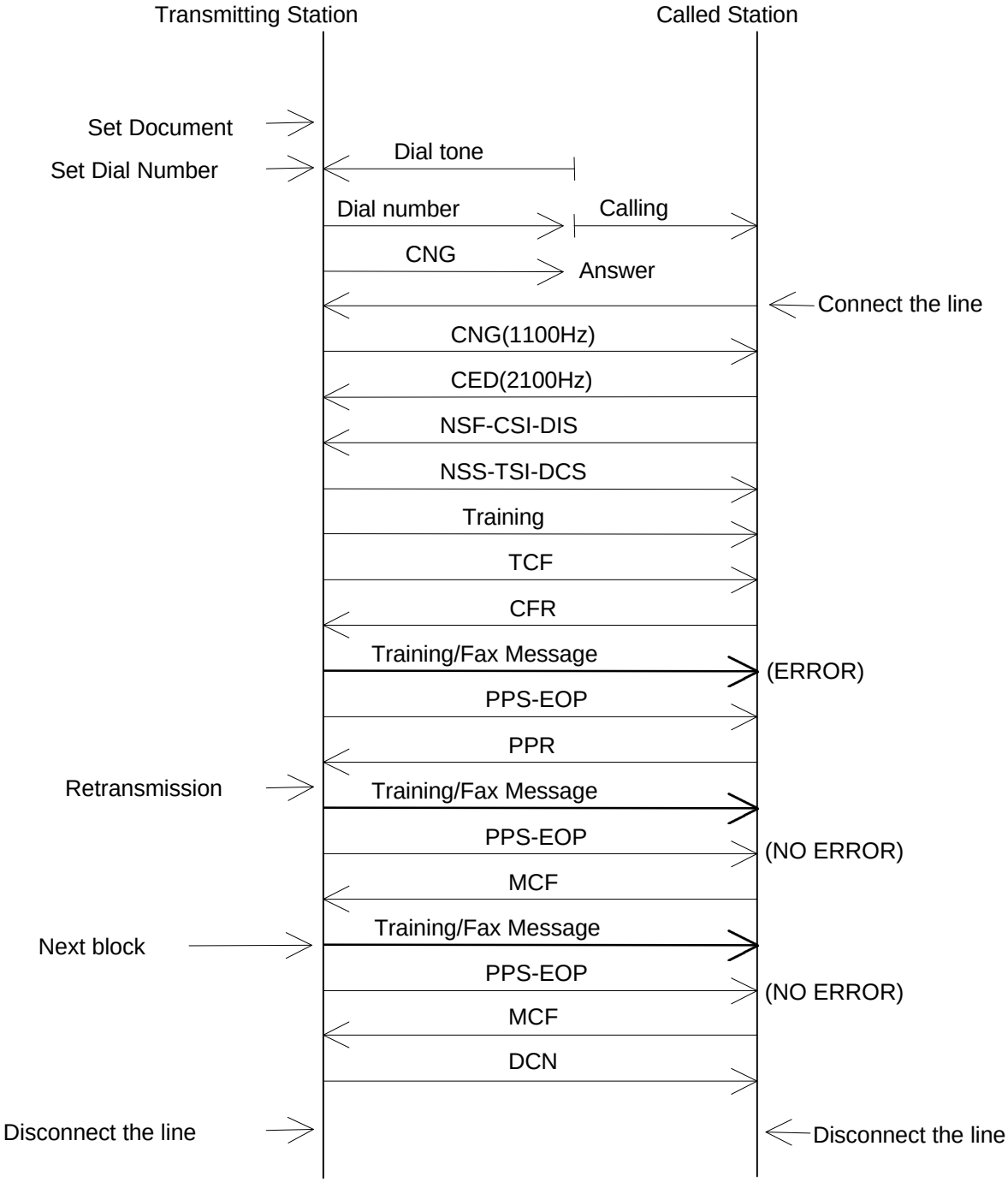
2.9 Transmission Control Procedure (G3 Non ECM mode)



2.10 Transmission Control Procedure (G3 Non ECM mode, polling)



2.11 Transmission Control Procedure (G3, ECM mode)



Section3
Adjustment Procedures

3.1 Field Service Program Modes

The fax machine feature maintenance modes for machine adjustment. Each mode is listed below along with the command used to activate the mode and a brief functional description.

Set or Clear Machine Parameters ..... PROGRAM, *, 0
Used to set or clear machine parameters.

Set or Clear Memory Switches..... **PROGRAM**, *****, **1**
Used to set or clear memory switches.

Clear Programmed Data / User Settings..... **PROGRAM**, *****, **2**
Erases user-programmed information (date, time, TTI, autodialer, etc.) and any documents stored in memory.

All RAM Clear..... **PROGRAM**, *****, **3**
Erases same information as “Clear Programmed Data / User Settings” function along with resetting all of the machine parameters, memory switches and unique switches to factory defaults.

Set or Clear Unique Switches ..... **PROGRAM**, *****, **4**
Used to set or clear Unique switches.

Printer maintenance mode..... **PROGRAM**, *****, **6**
Access the printer maintenance mode.

Print Program Mode List ..... PROGRAM, *, 8
Prints a list of the unit’s programming modes.

Test Modes..... PROGRAM, *, 9
Allows the technician to perform a series of diagnostic tests.

Print Machine Parameters, Memory Switches and Unique Switches List .....PROGRAM, *, A
Prints a list of the machine switch settings showing the default settings and current settings.

Factory Functions .....PROGRAM, *, B
Allows the technician to perform a series of diagnostic tests.

Telephone Circuit Test Modes.....PROGRAM, *, C
Allows the technician to perform a series of diagnostic tests.

Mirror Carriage Transfer Mode.....PROGRAM, *, E
Perform it before installing the fax machine.

Consumable order sheet.....PROGRAM, *, F
Perform it before installing the fax machine.

Print User Settings List ..... PROGRAM, *, G
Print a list of all of user settings.

Clear Life Monitor .....PROGRAM, *, H
Used to clear a Life monitor keeps a count of the pages scanned, etc.

DRAM Clear..... PROGRAM, *, I
Used to clear a DRAM.

Clear Consumable order sheet .....PROGRAM, *, L
Perform it before installing the fax machine.

3.2 Machine Parameter Adjustment

3.2.1 Setting the Machine Parameters

These switches are used to program internal machine parameters. The primary back up battery maintains these settings if power is lost.

1. From standby, press **PROGRAM**, *****, **0**.

```
Set Parameters
      Program/Enter
```

2. Press **ENTER**.

```
A0:       00000000
      Program/Enter
```

3. Select the desired parameter by pressing a one-touch key plus a number on the keypad. For example, to access parameter B:1, press one-touch "B" plus the number "1" on the numeric keypad.

```
B1:       00011010
      Program/Enter
```

4. Press **ENTER**.

```
Set Parameters
B1          00011010
```

Bit No. 76543210

(The bits are numbered 7 through 0 – bit 7 is left most.)

5. To navigate through the machine parameter settings:

- Press ◄ key to move the cursor to the left.
- Press ► to move the cursor to the right.
- Press the **0** or **1** on the numeric keypad to change the bit value.
- Press **ENTER** to save the setting of the displayed parameter and advance to the next parameter.

(Continue pressing **ENTER** until the desired parameter is shown in the display. Be sure to press **ENTER** after each parameter is programmed to save the new setting.)

- Press **STOP** to return the unit to standby.

3.2.2 Clearing the Machine Parameters

Resets the machine parameters to factory defaults.

1. From standby, press **PROGRAM, *, 0, PROGRAM.**

```
Clear Parameters
      Program/Enter
```

2. Press **ENTER**.

```
Clear Parameters
Check Program/Enter
```

3. Press **ENTER**. The machine parameters will reset to factory defaults.

Note: To finish the operation without clearing the parameters, press **STOP** or **PROGRAM**.

Machine Parameter A:0

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Country code	The country code enables the ROM to output the correct programming information for the respective country.
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter A:1

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Non-loaded cable compensation (TX)	0: 0: 1: 1: 0 db 4 db 8 db 12 db
6	1		0: 1: 0: 1:
5	0	Non-loaded cable compensation (RX)	0: 0: 1: 1: 0 db 4 db 8 db 12 db
4	1		0: 1: 0: 1:
3	*	Output attenuation	See table below **Note:** The setting of this switch is available only when setting other than 0 dB and this setting is used instead of Memory Switch B:1, bit 3-0.
2	*		
1	*		
0	*		

Machine Parameter A:1…Output attenuation

Switch	-15 dB	-14 dB	-13 dB	-12 dB	-11 dB	-10 dB	-9 dB	-8 dB	-7 dB	-6 dB	-5 dB	-4 dB	-3 dB	-2 dB	-1 dB	-0 dB
3	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
2	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0
1	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0
0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0

Machine Parameter A:2

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	DTMF output level attenuation	See table below.
2	1		
1	1		
0	1		

Machine Parameter A:2 … DTMF output level attenuation – (Factory default is -8 dB)

Switch 3	Switch 2	Switch 1	Switch 0	Attenuation
0	0	0	0	0 dB
0	0	0	1	1 dB
0	0	1	0	2 dB
0	0	1	1	3 dB
0	1	0	0	4 dB
0	1	0	1	5 dB
0	1	1	0	6 dB
0	1	1	1	7 dB
1	0	0	0	8 dB
1	0	0	1	9 dB
1	0	1	0	10 dB
1	0	1	1	11 dB
1	1	0	0	12 dB
1	1	0	1	13 dB
1	1	1	0	14 dB
1	1	1	1	15 dB

Machine Parameter A:3

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Leading edge document margin adjustment (ADF) Adjusts the leading edge margin from standby position to the start of the scanning position. Each setting changes by 0.65mm. **Note:** These values are factory set and should not be adjusted unless instructed by a OKI technical representative.	Switch 76543210 Settings 00000000 0.00 mm 00000001 0.65 mm 00110010 32.47 mm 00110011 33.12 mm 00110100 33.77 mm 00110101 34.42 mm 00110110 35.06 mm 00110111 35.71 mm 00111000 36.36 mm 00111001 37.01 mm 00111010 37.66 mm 00111011 38.31 mm 00111100 38.96 mm 00111101 39.61 mm 00111110 40.26 mm ← Initial setting 00111111 40.91 mm 01000000 41.56 mm 01000001 42.21 mm 01000010 42.86 mm 01000011 43.51 mm 01000100 44.16 mm 01000101 44.81 mm 01000110 45.45 mm 11111111 165.58 mm
6	0		
5	1		
4	1		
3	1		
2	1		
1	1		
0	0		

Machine Parameter A:4

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Trailing edge document margin adjustment. (ADF) Adjusts the document feed after the trailing edge of a document passes Document Sensor 2 (DS2). Each setting changes by 0.65mm. **Note:** These values are factory set and should not be adjusted unless instructed by a OKI technical representative.	Switch 76543210 Settings 00000000 0.00 mm 00000001 0.65 mm ⎮ ⎮ ⎮ ⎮ 00100001 21.43 mm 00100010 22.08 mm 00100011 22.73 mm 00100100 23.38 mm 00100101 24.03 mm 00100110 24.68 mm 00100111 25.32 mm 00101000 25.97 mm 00101001 26.62 mm 00101010 27.27 mm 00101011 27.92 mm ← Initial setting 00101100 28.57 mm 00101101 29.22 mm 00101110 29.87 mm 00101111 30.52 mm 00110000 31.17 mm 00110001 31.82 mm 00110010 32.47 mm 00110011 33.12 mm 00110100 33.77 mm 00110101 34.42 mm ⎮ ⎮ ⎮ ⎮ 11111111 165.58 mm
6	0		
5	1		
4	0		
3	1		
2	0		
1	1		
0	1		

Machine Parameter A:5 and A:6 — Factory use only

Machine Parameter A:7

Switch	Initial Setting	Adjust	Usage/Comments
7	0	DRAM capacity indication (This switch can indicate 1 to 8 MB memory capacity)	This switch indicates the DRAM capacity. This switch is read only, do not set any character. You can see the memory capacity by how many “1” is indicated on the LCD. For example, if the two “1” is indicated, i.e. “00000011”, the DRAM capacity is 2MB. If this switch shows “00001111”, it means the machine has 4MB DRAM capacity. Similarly, “00111111” means 6MB capacity.
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter A:8

Switch	Initial Setting	Adjust	Usage/Comments
7	0	DRAM capacity indication (This switch can indicate 9 to 16 MB memory capacity)	This switch indicates the DRAM capacity. This switch is read only, do not set any character. If the machine has 10 MB DRAM, the machine parameter A:7 indicates “1111111” and this switch(A:8) indicates “0000011”.
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter A:9 — Factory use only

Machine Parameter B:0

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Leading edge document margin adjustment (FBS) Adjusts the leading edge margin from standby position of the mirror carriage to the start of the scanning position. Each setting changes by 0.65mm. **Note:** These values are factory set and should not be adjusted unless instructed by a OKI technical representative.	Switch 76543210 Settings 00000000 0.00 mm 00000001 0.65 mm ⏐ ⏐ ⏐ ⏐ 00000101 3.25 mm 00000110 3.90 mm 00000111 4.55 mm 00001000 5.19 mm 00001001 5.84 mm 00001010 6.49 mm 00001011 7.14 mm 00001100 7.79 mm 00001101 8.44 mm 00001110 9.09 mm 00001111 9.74 mm ← Initial setting 00010000 10.39 mm 00010001 11.04 mm 00010010 11.69 mm 00010011 12.34 mm 00010100 12.99 mm 00010101 13.64 mm 00010110 14.29 mm 00010111 14.94 mm 00011000 15.58 mm 00011001 16.23 mm ⏐ ⏐ ⏐ ⏐ 11111111 165.58 mm
6	0		
5	0		
4	0		
3	1		
2	1		
1	1		
0	1		

Machine Parameter B:1

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Leading edge document margin adjustment (ADF) Adjusts the leading edge margin from the mirror carriage passes End Sensor to the start of the scanning position. Each setting changes by 0.65mm. **Note:** These values are factory set and should not be adjusted unless instructed by a OKI technical representative.	Switch 76543210 Settings 00000000 0.00 mm 00000001 0.65 mm ⋮ ⋮ 00010000 10.39 mm 00010001 11.04 mm 00010010 11.69 mm 00010011 12.34 mm 00010100 12.99 mm 00010101 13.64 mm 00010110 14.29 mm 00010111 14.94 mm 00011000 15.58 mm 00011001 16.23 mm 00011010 16.88 mm ← Initial setting 00011011 17.53 mm 00011100 18.18 mm 00011101 18.83 mm 00011110 19.48 mm 00011111 20.13 mm 00100000 20.78 mm 00100001 21.43 mm 00100010 22.08 mm 00100011 22.73 mm 00100100 23.38 mm ⋮ ⋮ 11111111 165.58 mm
6	0		
5	0		
4	1		
3	1		
2	0		
1	1		
0	0		

Machine Parameter B:2

Switch	Initial Setting	Adjust	Usage/Comments
7	0	ADF scanner registration adjustment (Horizontal) Adjusts the start point to scan the document. The plus setting increase the left margin and the minus setting decrease it. Each setting changes by 1/16 mm.	Switch 76543210 Settings 01111111 7.9 mm Maximum : 00100000 2.0 mm : 00011000 1.5 mm : 00010000 1.0 mm : 00001000 0.5 mm : <u>00000000</u> <u>Initial setting</u> : 10001000 -0.5 mm : 10010000 -1.0 mm : 10011000 -1.5 mm : 10100000 -2.0 mm : 11100100 -6.2 mm Minimum
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter B:3

Switch	Initial Setting	Adjust	Usage/Comments
7	0	FBS scanner registration adjustment (Horizontal) Adjusts the start point to scan the document. The plus setting increase the left margin and the minus setting decrease it. Each setting changes by 1/16 mm.	Switch 76543210 Settings 01111111 7.9 mm Maximum : 00100000 2.0 mm : 00011000 1.5 mm : 00010000 1.0 mm : 00001000 0.5 mm : <u>00000000</u> <u>Initial setting</u> : 10001000 -0.5 mm : 10010000 -1.0 mm : 10011000 -1.5 mm : 10100000 -2.0 mm : 10101100 -2.7 mm Minimum
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter B:4

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Printer registration adjustment (Vertical) Adjusts the start point to print. The plus setting increase the top and bottom margin and the minus setting decrease them. Each setting changes by 0.5 mm	Switch 76543210 Settings 00001010 5.0 mm 00001001 4.5 mm 00001000 4.0 mm 00000111 3.5 mm 00000110 3.0 mm 00000101 2.5 mm 00000100 2.0 mm 00000011 1.5 mm 00000010 1.0 mm 00000001 0.5 mm 00000000 Initial setting 10000001 -0.5 mm 10000010 -1.0 mm 10000011 -1.5 mm 10000100 -2.0 mm 10000101 -2.5 mm 10000110 -3.0 mm 10000111 -3.5 mm 10001000 -4.0 mm 10001001 -4.5 mm 10001010 -5.0 mm
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter B:5

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Printer registration adjustment (Horizontal) at the first cassette. Adjusts the start point to print. The plus setting increase the left margin and the minus setting decrease it. Each setting changes by 1 mm	Switch 76543210 Settings 00010100 20 mm 00010011 19 mm | | 00000011 3 mm 00000010 2 mm 00000001 1 mm 00000000 Initial setting 10000001 -1 mm 10000010 -2 mm 10000011 -3 mm | | | 10010100 -20 mm
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter B:6

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Printer registration adjustment (Horizontal) at the optional second cassette Adjusts the start point to print. The plus setting increase the left margin and the minus setting decrease it. Each setting changes by 1 mm	Switch 76543210 Settings 00010100 20 mm 00010011 19 mm | | 00000011 3 mm 00000010 2 mm 00000001 1 mm 00000000 Initial setting 10000001 -1 mm 10000010 -2 mm 10000011 -3 mm | | | 10010100 -20 mm
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter B:7

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Printer registration adjustment (Horizontal) at the optional third cassette Adjusts the start point to print. The plus setting increase the left margin and the minus setting decrease it. Each setting changes by 1 mm	Switch 76543210 Settings 00010100 20 mm 00010011 19 mm | | 00000011 3 mm 00000010 2 mm 00000001 1 mm 00000000 Initial setting 10000001 -1 mm 10000010 -2 mm 10000011 -3 mm | | | 10010100 -20 mm
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

Machine Parameter B:8

Switch	Initial Setting	Adjust	Usage/Comments
7	1	Printer registration adjustment (Horizontal) at the multipurpose tray Adjusts the start point to print. The plus setting increase the left margin and the minus setting decrease it. Each setting changes by 1 mm	Switch 76543210 Settings 00010100 20 mm 00010011 19 mm | | 00000011 3 mm 00000010 2 mm 00000001 1 mm 00000000 10000001 -1 mm ------ Initial setting 10000010 -2 mm 10000011 -3 mm | | | 10010100 -20 mm
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	1		

Machine Parameter B:9 ~ J:4 — Factory use only

Machine Parameter J:5

Switch	Initial Setting	Adjust	Usage/Comments
7	1	Slice level adjustment in Normal resolution.	Switch 76543210 10001010 Darkest setting | 10000001 10001000 Default setting 00000001 | 00001100 Lightest setting **Note:** Do not exceed each maximum settings.
6	0		
5	0		
4	0		
3	1		
2	0		
1	0		
0	0		

Machine Parameter J:6

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Slice level adjustment in Fine resolution.	Switch 76543210 10001010 Darkest setting | 10000001 00001000 Default setting 00000001 | 00001100 Lightest setting **Note:** Do not exceed each maximum settings.
6	0		
5	0		
4	0		
3	1		
2	0		
1	0		
0	0		

Machine Parameter J:7

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Slice level adjustment in SFine/HFine resolution.	Switch 76543210 10001010 Darkest setting | 10000001 00001000 Default setting 00000001 | 00001010 Lightest setting **Note:** Do not exceed each maximum settings.
6	0		
5	0		
4	0		
3	1		
2	0		
1	0		
0	0		

Machine Parameter J:8

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Slice level adjustment in grayscale resolution.	Switch 76543210 11111111 Darkest setting | 10000001 00000000 Default setting 00000001 | 01111111 Lightest setting **Note:** Do not exceed each maximum settings.
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	0		

3.3 Memory Switch Adjustment

3.3.1 Setting the Memory Switches

These switches are used to program internal machine parameters. The primary back up battery maintains these settings if power is lost.

1. From standby, press **PROGRAM**, *****, **1**.

```
Set Memory Switch
      Program/Enter
```

2. Press **ENTER**.

```
A0:         00000110
       Program/Enter
```

3. Select the desired memory switch by pressing a one-touch key plus a number on the keypad. For example, to access memory switch B:1, press one-touch “B” plus the number “1” on the numeric keypad.

```
B1:         01001001
       Program/Enter
```

4. Press **ENTER**.

```
Set Memory Switch
B1           01001001
```

Bit No. 76543210

(The bits are numbered 7 through 0 – bit 7 is left most.)

5. To navigate through the memory switch settings:

- Press ◄ key to move the cursor to the left.
- Press ► to move the cursor to the right.
- Press the **0** or **1** on the numeric keypad to change the bit value.
- Press **ENTER** to save the setting of the displayed memory switch and advance to the next memory switch.

(Continue pressing **ENTER** until the desired memory switch is shown in the display. Be sure to press **ENTER** after each memory switch is programmed to save the new setting.)

- Press **STOP** to return the unit to standby.

3.3.2 Clearing the Memory Switches

Resets the memory switches to factory defaults.

1. From standby, press **PROGRAM**, *****, **1, PROGRAM**.

```
Clear Memory Switch
      Program/Enter
```

2. Press **ENTER**.

```
Clear Memory Switch
Check Program/Enter
```

3. Press **ENTER**. The memory switches will reset to factory defaults.

Note: To finish the operation without clearing the memory switches, press **STOP** or **PROGRAM**.

Memory Switch A:0 - Dialer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	DIS detect time after dialing 0: 55 sec 1: 70 sec	Sets the time DIS signal is detected after dialing a number.
2	1	CED detection 0: No 1: Yes	Can be use to ignore CED detection if noise on the telephone line is mistaken as a 2100 Hz CED signal.
1	1	Dial tone detection 0: Do not dial 1: Dial	Determines if the unit proceeds with dialing or indicates an error if no dial tone is detected within five seconds of going off-hook.
0	0	Phone line type 0: PSTN 1: PBX	When set to PSTN, the unit checks for dial tone and acts according to the setting of memory switch A:0, bit 1. When set to PBX, the unit always dials a given number of seconds after going off-hook. Memory switch A:1 sets the number of seconds.

Memory Switch A:1 - Dialer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	PBX mode dial pause	Sets the number of seconds the unit waits before dialing when memory switch A:2, bit 0 is set to PBX mode. Switch 3 2 1 0 Pause time 0 0 0 0 0 sec 0 0 0 1 1 sec 0 0 1 0 2 sec 0 0 1 1 3 sec Default 0 1 0 0 4 sec 0 1 0 1 5 sec 0 1 1 0 6 sec 0 1 1 1 7 sec 1 0 0 0 8 sec 1 0 0 1 9 sec 1 0 1 0 10 sec 1 0 1 1 11 sec 1 1 0 0 12 sec 1 1 0 1 13 sec 1 1 1 0 14 sec 1 1 1 1 15 sec
2	0		
1	1		
0	1		

Memory Switch A:2~ A:4 — Factory use only

Memory Switch A:5 - Dialer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	1	Factory use only	
5	1	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Dual ring detection 0: No 1: Yes	When enabled, the unit is able to auto answer an incoming ring with an off time of 120 - 60 ms.
1	0	Long ring detection 0: No 1: Yes	Allows the unit to respond to an incoming ring if the ring on-time is longer than two seconds.
0	1	Ring frequency detection 0: No 1: Yes	When disabled, the unit will not check the ring frequency of incoming rings.

Memory Switch A:6 ~ A:9 — Factory use only

Memory Switch B:0 - Transmission

Switch	Initial Setting	Adjust	Usage/Comments
7	1	Busy tone detection 0: No 1: Yes	Sets this switch to “0” if the ring tone of remote unit is mistaken for a busy signal.
6	0	Fallback pattern (bps) 2400 4800 7200 9600 14400 Set at 0: 2 times 2 times 2 times 2 times 2 times Set at 1: 4 times 1 times 1 times 1 times 1 times	
5	0	Overseas mode 0: No 1: Yes	Re-enables echo suppression that is disabled by the CED signal (2100 Hz). Also ignores the first DIS signal and transmits the DCS signal in response to the second DIS signal.
4	0	V.29 Echo Protect tone 0: No 1: Yes	International telephone lines equipped with echo suppression will cut the beginning portion of the transmitted information which may cause the receiver not to receive the training and data. To protect the received image from degrading, a 0.5 second Echo Protect tone is placed prior to the training using G3 high speed modem training (V.29).
3	1	Maximum transmit speed (kbps) 2.4 4.8 7.2 9.6 12 14.4 16.8 19.2 21.6 24 26.4 28.8 31.2 33.6 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 1 1 1 1 0 0 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 **Note:** It is maximum 33.6 kbps only when AL-100 optional module is attached to OKIOFFICE 120 model. Standard OKIOFFICE 120 model is maximum 14.4 kbps.	
2	1		
1	0		
0	1		

Memory Switch B:1 - Transmission

Switch	Initial Setting	Adjust	Usage/Comments
7	0	The time between reception of CFR and transmission of data When CFR and data overlap due to line echo, increase the interval between CFR and data transmission using this switch.	
6	1	250 ms 500 ms 750 ms 1000 ms Switch 7 0 0 1 1 Switch 6 0 1 0 1	
5	0	Interval between DCS and TCF When FTT is received after DCS and TCF signals due to line echo, increase the interval between DCS and TCF signals using this switch.	
4	0	75 ms 300 ms 450 ms 600 ms Switch 5 0 0 1 1 Switch 4 0 1 0 1	
3	1	Output attenuation	See table below
2	0		
1	0		
0	1		

Memory Switch B:1…Output attenuation

Switch	-15 dB	-14 dB	-13 dB	-12 dB	-11 dB	-10 dB	-9 dB	-8 dB	-7 dB	-6 dB	-5 dB	-4 dB	-3 dB	-2 dB	-1 dB	-0 dB
3	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
2	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0
1	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0
0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0

Memory Switch B:2 - Transmission

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Data signaling rate (DCS) 0: V.17 1: V.33	Determines communication protocol.
6	0	Forced received print when transmitting from memory 0: No 1: Yes	Will force a remote OKIOFFICE 120 machine with memory receive capabilities to print directly. This switch will prevent a memory overflow error at the remote unit.
5	0	European date format on TTI 0: No 1: Yes	Assigns European date format to the transmitted TTI. (Example: 29 May 1997)
4	1	TTI transmit 0: No 1: Yes	When set at “0”, transmission of the TTI is disabled. (Note: Turning TTI transmission off may violate local or federal regulations.)
3	0	ECM response time 0: 3 sec 1: 4.8 sec	The time limit to receive the response signal for the ECM post message.
2	0	ECM error retransmit time 0: 200 ms 1: 400 ms	The time limit before the ECM error is retransmitted.
1	0	Interval between DIS and DCS	
0	0	0 ms 500 ms 1000 ms 1500 ms Switch 1 0 0 1 1 Switch 0 0 1 0 1	

Memory Switch B:3 - Transmission

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Retransmit automatically when receiving RTN/PIN signals 0: Yes 1: No	When set to “1”, retransmission disables automatically if receiving RTN/PIN signals.
2	1	Factory use only	
1	0	Factory use only	
0	0	Factory use only	

Memory Switch B:4 – Factory use only

Memory Switch B:5 - Transmission

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Program individual autodialer attributes 0: No 1: Yes	Allows individual setting of memory switches B:0 as attribute 1, B:1 as attribute 2, B:2 as attribute 3 and B:3 as attribute 4 when one-touch and speed dial locations are programmed. (Refer to page 3-29 for settings.)
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Sending RTC signal when transmission is canceled 0: Yes 1: No	RTC signal is sent at the end of the transmission. When set at “0”, the unit will send the RTC if the transmission is canceled. No error will occur. When set at “1”, an error will occur because RTC will not be sent at the end of a canceled transmission.
1	1	Cancel redial if T.4.1 or T.4.4 error occurs 0: Yes 1: No	When set at “0”, if a T.4.1 or T.4.4 error occurs, the unit will not retry the transmission.
0	0	Action after EOR signal 0: Continue 1: Discontinue	Sets action after receiving PPR four times at 2400 bps.

Memory Switch B:6 ~ B:9 — Factory use only

Memory Switch C:0 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Data error rate 0: 10% 1: 20%	Determines the allowable number of erred lines out of total lines received in a document.
6	0	Pause one second after sending CED 0: No (75 ms) 1: Yes (1 sec)	A 2100 Hz CED signal disables echo suppression in some telephone equipment. When set to "1", the unit pauses one second after sending CED, which allows echo suppression to restart. This may help with problematic overseas reception.
5	0	Factory use only	
4	0	Factory use only	
3	1	Receive speed (kbps) Maximum receive speed may be slowed to compensate for poor phone lines.	
2	1	2.4 4.8 7.2 9.6 12 14.4 16.8 19.2 21.6 24 26.4 28.8 31.2 33.6 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 1 1 1 1 0 0 0 0 1 1	
1	0	0 0 1 1 0 0 1 1 0 0 1 1 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1	
0	1	**Note:** It is maximum 33.6 kbps only when AL-100 optional module is attached to OKIOFFICE 120 model. Standard OKIOFFICE 120 model is maximum 14.4 kbps.	

Memory Switch C:1 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	T1 timer 0: 35 sec 1: 20 sec	
3	1	Print image data when post message is not received after receiving RTC signal 0: No 1: Yes	If the received document includes the RTC, the unit print the data even though the following protocol is not succeeded.
2	0	Disable ITU-T superfine reception 0: Yes 1: No	Set to “1” if a compatibility error occurs because the transmitting machine does not understand the extended frame for ITU-T superfine resolution. (Note: Setting this switch to “1” will disable superfine mode.)
1	0	G3 echo receive Adjusts the delay between detection of training/TCF and sending of CFR. 100 ms 500 ms 800 ms 1200 ms Switch 1 0 0 1 1 Switch 0 0 1 0 1	
0	1		

Memory Switch C:2 ~ C:9 — Factory use only

Memory Switch D:0 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Number of HDLC end flags	Defines the number of HDLC end flags. Switch 7 6 5 4 0 0 0 0 1 0 0 0 1 2 0 0 1 0 3 Default 0 0 1 1 4 0 1 0 0 5 0 1 0 1 6 0 1 1 0 7 0 1 1 1 8 1 0 0 0 9 1 0 0 1 10 1 0 1 0 11 1 0 1 1 12 1 1 0 0 13 1 1 0 1 14 1 1 1 0 15 1 1 1 1 16
6	0		
5	1		
4	0		
3	0	Factory use only	
2	1	Group delay compensation 0: No 1: Yes	As if two exchangers are selected to communicate each other, compensate the group delay.
1	0	Digital cable equalizer 0: Free 1: Hold	When set to “1”, become efficient for the line short break, but become weak for the line noise. It’s available only for communication at 14,400 or 12,000 bit/s.
0	1	Carrier detection level 0: -43/48 dB 1: -47/52 dB	Setting this switch to “1” increases the sensitivity.

Memory Switch D:1 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	1	EYE-Q check level at 7200 bps	0 0 1 1 Strict-- - - - - - - - - - -Lenient 0 1 0 1
6	0		
5	1	EYE-Q check level at 9600 bps	0 0 1 1 Strict - - - - - - - - - - -Lenient 0 1 0 1
4	0		
3	1	EYE-Q check level at 12000 bps	0 0 1 1 Strict - - - - - - - - - - -Lenient 0 1 0 1
2	0		
1	1	EYE-Q check level at 14400 bps	0 0 1 1 Strict - - - - - - - - - - -Lenient 0 1 0 1
0	0		

Memory Switch D:2 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	EYE-Q slice level 0: Disable 1: Enable	Setting this bit to “1” enables memory switch D:2, bits 0-3 and memory switch D:1, bits 0-7 and enables EYE-Q check adjustment.
6	1	Check EYE-Q 0: No 1: Yes	Set at 0: Line condition status (EYE-Q) is not checked after checking TCF. Set at 1: Line condition status (EYE-Q) is checked after checking TCF.
5	0	Factory use only	
4	0	Factory use only	
3 2	1 0	EYE-Q check level at 2400 bps	0 0 1 1 Strict - - - - - - - - - - - -Lenient 0 1 0 1
1 0	1 0	EYE-Q check level at 4800 bps	0 0 1 1 Strict - - - - - - - - - - - -Lenient 0 1 0 1

Memory Switch D:3 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Delete receive echo of CFR at the receiver side 0: No 1: Yes	Modem will be opened only in high-speed mode. Sets this switch to “1” to resolve the problem caused of the echo of CFR.
0	0	Expand FSK receive time after detecting flag 0: 3.3 seconds 1: 10 seconds	Setting this switch to “1” extend HDLC frame receive timer in FSK from 3.3 seconds to 10 seconds after detecting pre-amble.

Memory Switch D:4 ~ D:9 — Factory use only

Memory Switch E:0 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	1	Background level 0: Automatic 1: Fixed	The background level measures the reflective ability of scanned documents.
1	0	Effective scan width 0: A4=208 mm (8.2″) / B4=252 mm (9.9″) / A3=298 mm (11.7″) 1: A4=216 mm (8.5″) / B4=256 mm (10.1″) / A3=304 mm (12″) **Note:** The unit must be turned off, then on, for this change to take effect. (Remember, any documents stored in memory will be lost if power is turned off.)	
0	1	Document TX length limit 0: Unlimited 1: 1 meter	Setting to unlimited will override document jam sensing.

Memory Switch E:1 ~ F:9 — Factory use only

Memory Switch G:0 - Remote reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	1	CML relay off time after dialing 0: 1 sec 1: 200 ms	When dialing from the keypad, phone line noise may occur as the CML relay switches on and off. Set this switch to “0” to avoid this.
5	0	DTMF tones heard through handset 0: No 1: Yes	Determines if DTMF tones are produced through the handset in off-hook dialing.
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Remote reception from the second phone 0: No 1: Yes	Ability to perform remote reception (hook-flash transfer) from the second phone.
0	0	Remote reception from fax handset 0: No 1: Yes	Ability to perform remote reception (hook-flash transfer) from the fax handset.

Memory Switch G:1 - Remote reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Off-hook / on-hook detect time (remote reception)	Sets the time interval between the off-hook/on-hook condition for remote reception. Switch 7 6 5 4 Time 0 0 0 0 0 ms 0 0 0 1 10 ms 0 0 1 0 20 ms 0 0 1 1 30 ms Default 0 1 0 0 40 ms 0 1 0 1 50 ms 0 1 1 0 60 ms 0 1 1 1 70 ms 1 0 0 0 80 ms 1 0 0 1 90 ms 1 0 1 0 100 ms 1 0 1 1 110 ms 1 1 0 0 120 ms 1 1 0 1 130 ms 1 1 1 0 140 ms 1 1 1 1 150 ms
6	0		
5	1		
4	1		
3	0	Off-hook / on-hook detect time	Sets the time interval between the on-hook and off-hook(or off-hook/on-hook) condition. Switch 3 2 1 0 Time 0 0 0 0 0 ms 0 0 0 1 100 ms 0 0 1 0 200 ms 0 0 1 1 300 ms 0 1 0 0 400 ms Default 0 1 0 1 500 ms 0 1 1 0 600 ms 0 1 1 1 700 ms 1 0 0 0 800 ms 1 0 0 1 900 ms 1 0 1 0 1000 ms 1 0 1 1 1100 ms 1 1 0 0 1200 ms 1 1 0 1 1300 ms 1 1 1 0 1400 ms 1 1 1 1 1500 ms
2	1		
1	0		
0	0		

Memory Switch G:2 - Remote reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	1	Factory use only	
3	0	Switch-hook time	If the switch hook is quickly depressed and released, switch-to-fax will occur. This setting adjusts how quickly the switch hook activation must be. Switch 3 2 1 0 Time 0 0 0 0 0 ms 0 0 0 1 100 ms 0 0 1 0 200 ms 0 0 1 1 300 ms Default 0 1 0 0 400 ms 0 1 0 1 500 ms 0 1 1 0 600 ms 0 1 1 1 700 ms 1 0 0 0 800 ms 1 0 0 1 900 ms 1 0 1 0 1000 ms 1 0 1 1 1100 ms 1 1 0 0 1200 ms 1 1 0 1 1300 ms 1 1 1 0 1400 ms 1 1 1 1 1500 ms
2	0		
1	1		
0	1		

Memory Switch G:3 ~ G:4 — Factory use only

Memory Switch G:5 - Remote reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Factory use only	
0	0	Beep if fax handset hang up 0: Yes 1: No	Determines if your fax beeps when having left the fax's handset hanging up after communication.

Memory Switch G:6 ~ G:9 — Factory use only

Memory Switch H:0 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Display error line 0: No 1: Yes	The number of error lines contained in the received data will be shown in the LCD.
6	0	Total line monitor 0: No 1: Yes	Allows fax communication to be heard through the monitor speaker.
5	0	Factory use only	
4	0	Sort autodialer printout 0: Sort by autodialer location 1: Sort by location ID	Specifies how entries on autodialer printouts are sorted.
3	1	Print check message if power is lost 0: No 1: Yes	In the event of two power losses in a 40 hour period, documents will be lost. When power is restored, a check message will print.
2	1	Print page if error occurs during memory transmission 0: No 1: Yes	For easy identification, the first page of a document stored for memory transmission will print along a check message if an error occurs during memory transmission.
1	1	Print check message 0: No 1: Yes	To notify the user of an error, a check message can be printed if a communication error occurs.
0	0	Stop printing check message for a memory transmission by pressing the stop key 0: No 1: Yes	Determines if pressing the stop key stop printing the check message for a memory transmission.

Memory Switch H:1 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Factory use only	
0	0	Display modem speed 0: No 1: Yes	The transmit/receive speed is displayed in the LCD.

Memory Switch H:2 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	1	Erase polled document 0: No 1: Yes	Determines if a document stored for polling is erased after being polled.
0	1	Print TCR after the batch transmission 0: No 1: Yes	Determines if printing the confirmation report after completing the batch transmission.

Memory Switch H:3 ~ J:9 — Factory use only

3.4 Clear Programmed Data / User Settings

User programmed information such as autodialer entries, date, time, Transmit Terminal Identifier (TTI), Subscriber ID, etc., are stored in the unit's Random Access Memory (RAM). This information is held by a battery back up when the power is lost.

This function does not clear the machine parameters, memory switches and unique switches. Therefore, this setting is useful to reset the user programmed information but leave specific parameters and switches configured for a particular telephone system, etc.

To reset only each switch, see page 3-2, 3-15 and 3-32.

Note: If desired, the All RAM Clear setting can be used to erase all user programmed information, all documents in memory, and reset the memory switches and machine parameters to factory defaults. For information on the All RAM Clear setting, see the next page.

1. To clear programmed data and user settings, from standby, press **PROGRAM**, *****, **2**.

```
Clear User Settings
Check  Program/Enter
```

2. Press **ENTER**.

   Note: To finish the operation without performing initialization, press **STOP** or **PROGRAM**.

3.5 All RAM Clear

The All RAM Clear setting will erase all user programmed information, all documents in memory, and reset the memory switches and machine parameters to factory defaults.
This feature may also be used to try and clear a machine malfunction or lock up. If possible, when the All RAM Clear is used to reset a malfunction or lock up, it is advisable to print the machine settings, one-touch and speed dial listings to help in reprogramming this information.

1. To perform an All RAM Clear, from standby, press **PROGRAM**, *****, **3**.

```
All RAM Clear
Check Program/Enter
```

2. Press **ENTER**.

Note: To finish the operation without performing RAM clear, press **STOP** or **PROGRAM**.

Note: This setting does not clear the life monitor and the consumable order sheet data.

3.6 Setting Individual Autodialer Attributes

This function allows the user to configure an individual one-touch or speed dial entry with the settings shown in Memory Switches B:0, B:1, B:2 and B:3.

To set the individual attributes:

1. Change memory switch B:5, bit 7 to a “1”. (See setting 3.3.1 Setting the Memory Switches for more information on changing memory switch B:5.)
2. When the function is enabled, an “Attribute” option is added to the autodialer programming steps. As a one-touch or speed dial location is programmed, an extra step showing Attribute 1, Attribute 2, Attribute 3, and Attribute 4 are added as the last step.

```
A :Attribute1
10001101
```

Bit No. 76543210

3. Set the individual bit positions as shown in the following table. To change a setting, press ◄ or ► until the cursor is the below the desired bit position; then press “**1”** or “**0”** to make the change.

Attribute 1 - Individual Autodialer Setting (Equivalent to Memory Switch B:0)

Switch	Initial Setting	Adjust	Usage/Comments
7	1	Busy tone detection 0: No 1: Yes	Sets this switch to "0" if the ring tone of remote unit is mistaken for a busy signal.
6	0	Fallback pattern (bps) 2400 4800 7200 9600 14400 Set at 0: 2 times 2 times 2 times 2 times 2 times Set at 1: 4 times 1 times 1 times 1 times 1 times	
5	0	Overseas mode 0: No 1: Yes	Re-enables echo suppression that is disabled by the CED signal (2100 Hz). Also ignores the first DIS signal and transmits the DCS signal in response to the second DIS signal.
4	0	V.29 Echo Protect tone 0: No 1: Yes	International telephone lines equipped with echo suppression will cut the beginning portion of the transmitted information which may cause the receiver not to receive the training and data. To protect the received image from degrading, a 0.5 second Echo Protect tone is placed prior to the training using G3 high speed modem training (V.29).
3	1	Maximum transmit speed (kbps) 2.4 4.8 7.2 9.6 12 14.4 16.8 19.2 21.6 24 26.4 28.8 31.2 33.6	
2	1	0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 1 1 1 1 0 0 0 0 1 1	
1	0	0 0 1 1 0 0 1 1 0 0 1 1 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1	
0	1	**Note:** It is maximum 33.6 kbps only when AL-100 optional module is attached to OKIOFFICE 120 model. Standard OKIOFFICE 120 model is maximum 14.4 kbps.	

Attribute 2 - Individual Autodialer Setting (Equivalent to Memory Switch B:1)

Switch	Initial Setting	Adjust	Usage/Comments
7	0	The time between reception of CFR and transmission of data When CFR and data overlap due to line echo, increase the interval between CFR and data transmission using this switch.	
6	1	250 ms 500 ms 750 ms 1000 ms Switch 7 0 0 1 1 Switch 6 0 1 0 1	
5	0	Interval between DCS and TCF When FTT is received after DCS and TCF signals due to line echo, increase the interval between DCS and TCF signals using this switch.	
4	0	75 ms 300 ms 450 ms 600 ms Switch 5 0 0 1 1 Switch 4 0 1 0 1	
3	1	Output attenuation	See table on next page
2	0		
1	0		
0	1		

Output attenuation when individual autodialer attributes are set.

Switch	-15 dB	-14 dB	-13 dB	-12 dB	-11 dB	-10 dB	-9 dB	-8 dB	-7 dB	-6 dB	-5 dB	-4 dB	-3 dB	-2 dB	-1 dB	-0 dB
3	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
2	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0
1	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0
0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0

Attribute 3 - Individual Autodialer Setting **(Equivalent to Memory Switch B:2)**

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Data signaling rate (DCS) 0: V.17 1: V.33	Determines communication protocol.
6	0	Forced received print when transmitting from memory 0: No 1: Yes	Will force a remote OKIOFFICE 120 machine with memory receive capabilities to print directly. This switch will prevent a memory overflow error at the remote unit.
5	0	European date format on TTI 0: No 1: Yes	Assigns European date format to the transmitted TTI. (Example: 29 May 1997)
4	1	TTI transmit 0: No 1: Yes	When set at “0”, transmission of the TTI is disabled. (Note: Turning TTI transmission off may violate local or federal regulations.)
3	0	ECM response time 0: 3 sec 1: 4.8 sec	The time limit to receive the response signal for the ECM post message.
2	0	ECM error retransmit time 0: 200 ms 1: 400 ms	The time limit before the ECM error is retransmitted.
1	0	Interval between DIS and DCS	
0	0	0 ms 500 ms 1000 ms 1500 ms Switch 1 0 0 1 1 Switch 0 0 1 0 1	

Attribute 4 - Individual Autodialer Setting **(Equivalent to Memory Switch B:3)**

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Retransmit automatically when receiving RTN/PIN signals 0: Yes 1: No	When set to “1”, retransmission disables automatically if receiving RTN/PIN signals.
2	1	Factory use only	
1	0	Factory use only	
0	0	Factory use only	

3.7 Unique Switch Adjustment

3.7.1 Setting the Unique Switches

These switches are used to program internal machine parameters. The primary back up battery maintains these settings if power is lost.

1. From standby, press **PROGRAM**, *****, **4**.

```
Set Uniq Switch
      Program/Enter
```

2. Press **ENTER**.

```
A0:       01000001
      Program/Enter
```

3. Select the desired unique switch by pressing a one-touch key plus a number on the keypad. For example, to access parameter B:1, press one-touch “B” plus the number “1” on the numeric keypad.

```
B1:       00000000
      Program/Enter
```

4. Press **ENTER**.

```
Set Uniq Switch
B1           00000000
```

Bit No. 76543210

(The bits are numbered 7 through 0 – bit 7 is left most.)

5. To navigate through the unique switch settings:
   - Press ◄ key to move the cursor to the left.
   - Press ► key to move the cursor to the right.
   - Press the **0** or **1** on the numeric keypad to change the bit value.
   - Press **ENTER** to save the setting of the displayed unique switch and advance to the next unique switch.

   (Continue pressing **ENTER** until the desired unique switch is shown in the display. Be sure to press **ENTER** after each unique switch is programmed to save the new setting.)
   - Press **STOP** to return the unit to standby.

Clearing the Unique Switches

Resets the unique switches to factory defaults.

1. From standby, press **PROGRAM, *, 4, PROGRAM**.

```
Clear Uniq Switch
      Program/Enter
```

2. Press **ENTER**.

```
Clear Uniq Switch
Check Program/Enter
```

3. Press **ENTER**. The unique switches will reset to factory defaults.

Note: To finish the operation without clearing the unique switches, press **STOP** or **PROGRAM**.

Unique Switch A:0 - Dialer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	1	Congestion tone detection 0: No 1: Yes	Setting this switch to “0” ignores telephone line congestion tones.
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Factory use only	
0	1	Factory use only	

Unique Switch A:1 ~ A:9 — Factory use only

Unique Switch B:0 - Transmission

Switch	Initial Setting	Adjust				Usage/Comments
7	0	Factory use only				
6	0	Factory use only				
5	0	Factory use only				
4	1	Factory use only				
3	0	Factory use only				
2	0	Factory use only				
1	1	The number of times PPR is detected during ECM transmission				
		1 time	2 times	3 times	4 times	
0	1	0	0	1	1	
		0	1	0	1	

Unique Switch B:1 ~ B:5 — Factory use only

Unique Switch B:6 - Transmission

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	1	F-code sub-frame off 0: Send 1: Not send	Do not send the sub-address and password of F-code box when a point of sending DCS signal after EOM signal.
3	0	Send F-code box's TTI 0: No 1: Yes	Transmit the sub-address and box name of F-code box with F-code polling document.
2	1	Factory use only	
1	0	Retrieve document 0: No 1: Yes	Retrieve the document received in F-code SecureMail box by polling transmission.
0	1	Ignore F-code bit 0: No 1: Yes	Neglect SEP bit of DTC signal or SUB bit of DCS signal at F-code polled transmission.

Unique Switch B:7 ~ B:9 — Factory use only

Unique Switch C:0 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	1	MMR storage 0: No 1: Yes	Determines how documents are stored in memory for transmission.
4	1	Transmit CED signal when manual/remote receive 0: No 1: Yes	Determines if sending CED signal at on-hook transfer.
3	1	Factory use only	
2	0	Factory use only	
1	1	Print a page completed to receive during receiving into memory 0: No 1: Yes	Determines if printing a page which completed to receive the data during receiving it into fax's memory.
0	1	Avoid time out in ECM reception 0: No 1: Yes	Disables 60 seconds RNR time out in ECM mode.

Unique Switch C:1 - Reception

<table>
<tr><th>Switch</th><th>Initial Setting</th><th>Adjust</th><th>Usage/Comments</th></tr>
<tr><td>7

6

5

4</td><td>0

1

1

0</td><td>T1 timer adjustment</td><td>When the unit switches to fax by on-hook transfer, the unit will seize the telephone line and attempt to handshake.

Switch 7 5 6 4 Settings
0 0 0 0 0 s
0 0 0 1 1 s
0 0 1 0 2 s
0 0 1 1 3 s
0 1 0 0 4 s
0 1 0 1 5 s
<u>0 1 1 0 6 s</u> ← Initial setting
0 1 1 1 7 s
1 0 0 0 8 s
1 0 0 1 9 s
1 0 1 0 10 s
1 0 1 1 11 s
1 1 0 0 12 s
1 1 0 1 13 s
1 1 1 0 14 s
1 1 1 1 15 s</td></tr>
<tr><td>3

2

1

0</td><td>1

0

1

0</td><td>TCF check time
(in 100 ms units)</td><td>If the TCF time is such that poor image quality is the result, lengthen the TCF check time.

Switch 3 2 1 0 Time
0 0 0 0 0 ms
0 0 0 1 100 ms
0 0 1 0 200 ms
0 0 1 1 300 ms
0 1 0 0 400 ms
0 1 0 1 500 ms
0 1 1 0 600 ms
0 1 1 1 700 ms
1 0 0 0 800 ms
1 0 0 1 900 ms
<u>1 0 1 0 1000 ms</u> Default
1 0 1 1 1100 ms
1 1 0 0 1200 ms
1 1 0 1 1300 ms
1 1 1 0 1400 ms
1 1 1 1 1500 ms</td></tr>
</table>

Unique Switch C:2 - Reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Junk Mode2 no TSI 0: Receive document 1: Reject receiving	When block junk fax mode2 is set, determines if the fax machine can not receive TSI signal.
1	0	Factory use only	
0	0	Call request when remaining memory size is small 0:No 1:Yes	Setting this switch to “1” prompt call request to transmitter when remaining memory size is small after receiving the document which not the last page.

Unique Switch C:3 ~ D:9 — Factory use only

Unique Switch E:0 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Factory use only	
0	1	Hyper Fine resolution 0: No 1: Yes	When set at “1”, Super fine (SFine) resolution change into Hyper fine (HFine) resolution.

Unique Switch E:1 — Factory use only

Unique Switch E:2 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Mirror carriage home position 0: FBS 1: ADF	This switch is only effective when the unique switch E:2 bit 0 is set at “0”. Determines the Mirror carriage home position.
0	1	Mirror carriage home position 0: Fixed 1: Variable	Determines the Mirror carriage home position.

Unique Switch E:3 — Factory use only

Unique Switch E:4 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Leading edge document margin settings for ADF/FBS copying	Sets the leading edge margin from the edge of document to the start of the scanning position. Switch 3 2 1 0 Settings 0 0 0 0 0.00 mm 0 0 0 1 0.65 mm 0 0 1 0 1.30 mm 0 0 1 1 1.95 mm 0 1 0 0 2.60 mm 0 1 0 1 3.25 mm 0 1 1 0 3.90 mm 0 1 1 1 4.55 mm 1 0 0 0 5.19 mm 1 0 0 1 5.84 mm 1 0 1 0 6.49 mm 1 0 1 1 7.14 mm 1 1 0 0 7.79 mm 1 1 0 1 8.44 mm 1 1 1 0 9.09 mm 1 1 1 1 9.74 mm
2	0		
1	0		
0	0		

Unique Switch E:5 - Scanner

<table>
<tr><th>Switch</th><th>Initial Setting</th><th>Adjust</th><th>Usage/Comments</th></tr>
<tr><td>7

6

5

4</td><td>0

0

0

0</td><td>Leading edge document margin settings (ADF)

Adjusts the leading edge margin from the mirror carriage passes End Sensor to the start of the scanning position.

Each setting changes by 0.65 mm.

Note: This switch is used only for field adjustment.

As Machine Parameter B:3 is for factory adjustment, do not use for field.</td><td>Switch 7 6 5 4 Settings
0 1 1 1 4.55 mm
0 1 1 0 3.90 mm
0 1 0 1 3.25 mm
0 1 0 0 2.60 mm
0 0 1 1 1.95 mm
0 0 1 0 1.30 mm
0 0 0 1 0.65 mm
<u>0 0 0 0 0.00 mm</u> ← Initial setting
1 0 0 1 -0.65 mm
1 0 1 0 -1.30 mm
1 0 1 1 -1.95 mm
1 1 0 0 -2.60 mm
1 1 0 1 -3.25 mm
1 1 1 0 -3.90 mm
1 1 1 1 -4.55 mm</td></tr>
<tr><td>3

2

1

0</td><td>0

0

0

0</td><td>Leading edge document margin settings (FBS)

Adjusts the leading edge margin from standby position or the mirror carriage to the start of the scanning position.

Each setting changes by 0.65 mm.

Note: This switch is used only for field adjustment.

As Machine Parameter B:2 is for factory adjustment, do not use for field.</td><td>Switch 3 2 1 0 Settings
0 1 1 1 4.55 mm
0 1 1 0 3.90 mm
0 1 0 1 3.25 mm
0 1 0 0 2.60 mm
0 0 1 1 1.95 mm
0 0 1 0 1.30 mm
0 0 0 1 0.65 mm
<u>0 0 0 0 0.00 mm</u> ← Initial setting
1 0 0 1 -0.65 mm
1 0 1 0 -1.30 mm
1 0 1 1 -1.95 mm
1 1 0 0 -2.60 mm
1 1 0 1 -3.25 mm
1 1 1 0 -3.90 mm
1 1 1 1 -4.55 mm</td></tr>
</table>

Unique Switch E:6 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Left edge document margin adjustment upon scanning using FBS Adjusts the left edge margin when scanning document by FBS. Each setting changes by 1 mm.	Switch 5 4 3 2 1 0 Settings 0 0 0 0 0 0 0 mm 0 0 0 0 0 1 1 mm 0 0 0 0 1 0 2 mm 0 0 0 0 1 1 3 mm 0 0 0 1 0 0 4 mm 0 0 0 1 0 1 5 mm 0 0 0 1 1 0 6 mm 0 0 0 1 1 1 7 mm 0 0 1 0 0 0 8 mm 0 0 1 0 0 1 9 mm 0 0 1 0 1 0 10 mm 0 0 1 0 1 1 11 mm 0 0 1 1 0 0 12 mm 0 0 1 1 0 1 13 mm 0 0 1 1 1 0 14 mm 0 0 1 1 1 1 15 mm 0 1 0 0 0 0 16 mm 0 1 0 0 0 1 17 mm 0 1 0 0 1 0 18 mm 0 1 0 0 1 1 19 mm 0 1 0 1 0 0 20 mm 0 1 0 1 0 1 21 mm 0 1 0 1 1 0 22 mm 0 1 0 1 1 1 23 mm 0 1 1 0 0 0 24 mm 0 1 1 0 0 1 25 mm ⋮ ⋮ 1 1 1 1 1 1 63 mm
4	0		
3	0		
2	0		
1	0		
0	0		

Unique Switch E:7 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Right edge document margin adjustment upon scanning using FBS Adjusts the right edge margin when scanning document by FBS. Each setting changes by 1 mm.	Switch 5 4 3 2 1 0 Settings 0 0 0 0 0 0 0 mm 0 0 0 0 0 1 1 mm 0 0 0 0 1 0 2 mm 0 0 0 0 1 1 3 mm 0 0 0 1 0 0 4 mm 0 0 0 1 0 1 5 mm 0 0 0 1 1 0 6 mm 0 0 0 1 1 1 7 mm 0 0 1 0 0 0 8 mm 0 0 1 0 0 1 9 mm 0 0 1 0 1 0 10 mm 0 0 1 0 1 1 11 mm 0 0 1 1 0 0 12 mm 0 0 1 1 0 1 13 mm 0 0 1 1 1 0 14 mm 0 0 1 1 1 1 15 mm 0 1 0 0 0 0 16 mm 0 1 0 0 0 1 17 mm 0 1 0 0 1 0 18 mm 0 1 0 0 1 1 19 mm 0 1 0 1 0 0 20 mm 0 1 0 1 0 1 21 mm 0 1 0 1 1 0 22 mm 0 1 0 1 1 1 23 mm 0 1 1 0 0 0 24 mm 0 1 1 0 0 1 25 mm : : 1 1 1 1 1 1 63 mm
4	0		
3	0		
2	0		
1	0		
0	0		

Unique Switch E:8 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Leading edge document margin adjustment upon scanning using FBS Adjusts the leading edge margin when scanning document by FBS. Each setting changes by 1 mm.	Switch 5 4 3 2 1 0 Settings 0 0 0 0 0 0 0 mm 0 0 0 0 0 1 1 mm 0 0 0 0 1 0 2 mm 0 0 0 0 1 1 3 mm 0 0 0 1 0 0 4 mm 0 0 0 1 0 1 5 mm 0 0 0 1 1 0 6 mm 0 0 0 1 1 1 7 mm 0 0 1 0 0 0 8 mm 0 0 1 0 0 1 9 mm 0 0 1 0 1 0 10 mm 0 0 1 0 1 1 11 mm 0 0 1 1 0 0 12 mm 0 0 1 1 0 1 13 mm 0 0 1 1 1 0 14 mm 0 0 1 1 1 1 15 mm 0 1 0 0 0 0 16 mm 0 1 0 0 0 1 17 mm 0 1 0 0 1 0 18 mm 0 1 0 0 1 1 19 mm 0 1 0 1 0 0 20 mm 0 1 0 1 0 1 21 mm 0 1 0 1 1 0 22 mm 0 1 0 1 1 1 23 mm 0 1 1 0 0 0 24 mm 0 1 1 0 0 1 25 mm ⋮ ⋮ 1 1 1 1 1 1 63 mm
4	0		
3	0		
2	0		
1	0		
0	0		

Unique Switch E:9 - Scanner

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Trailing edge document margin adjustment upon scanning using FBS Adjusts the trailing edge margin when scanning document by FBS. Each setting changes by 1 mm.	Switch 5 4 3 2 1 0 Settings 0 0 0 0 0 0 0 mm 0 0 0 0 0 1 1 mm 0 0 0 0 1 0 2 mm 0 0 0 0 1 1 3 mm 0 0 0 1 0 0 4 mm 0 0 0 1 0 1 5 mm 0 0 0 1 1 0 6 mm 0 0 0 1 1 1 7 mm 0 0 1 0 0 0 8 mm 0 0 1 0 0 1 9 mm 0 0 1 0 1 0 10 mm 0 0 1 0 1 1 11 mm 0 0 1 1 0 0 12 mm 0 0 1 1 0 1 13 mm 0 0 1 1 1 0 14 mm 0 0 1 1 1 1 15 mm 0 1 0 0 0 0 16 mm 0 1 0 0 0 1 17 mm 0 1 0 0 1 0 18 mm 0 1 0 0 1 1 19 mm 0 1 0 1 0 0 20 mm 0 1 0 1 0 1 21 mm 0 1 0 1 1 0 22 mm 0 1 0 1 1 1 23 mm 0 1 1 0 0 0 24 mm 0 1 1 0 0 1 25 mm ⋮ ⋮ 1 1 1 1 1 1 63 mm
4	0		
3	0		
2	0		
1	0		
0	0		

Unique Switch F:0 - Printer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	1	Smoothing in SFine (200 x 400 dpi) copy/receive mode 0: No 1: Yes	Smoothes the data scanned in each resolution mode.
4	0	Smoothing in Fine receive mode 0: No 1: Yes	
3	1	Smoothing in Fine copy mode 0: No 1: Yes	
2	1	Smoothing in Normal copy/receive resolution 0: No 1: Yes	
1	1	Smoothing in Normal, Fine, and SFine resolutions in receive mode 0: No 1: Yes	
0	1	Smoothing in Normal, Fine, and SFine resolutions in copy mode 0: No 1: Yes	

Unique Switch F:1 - Printer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	1	Factory use only	
3	0	Factory use only	
2	0	Factory use only	
1	0	Factory use only	
0	0	Print reduction 0: No 1: Yes	If the document size is different from the recording paper size in the paper cassette: When set to “0”, print the image at 100 % size on two or more pages. When set to “1”, reduce printout to fit on one sheet.

Unique Switch F:2 - Printer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Printer auto shut off time	Time until the power supply turns the fusing unit off after printing has completed. Switch 7 6 5 4 3 2 1 0 Time 0 0 0 0 0 0 0 0 0 min 0 0 0 0 0 0 0 1 1 min 0 0 0 0 0 0 1 0 2 min | 0 0 0 0 0 1 0 1 5 min Default 1 1 1 1 1 1 0 0 252 min 1 1 1 1 1 1 0 1 253 min 1 1 1 1 1 1 1 0 254 min 1 1 1 1 1 1 1 1 255 min
6	0		
5	0		
4	0		
3	0		
2	1		
1	0		
0	1		

Unique Switch F:3 - Printer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Printing density	Switch 2 1 0 0 0 0 Lightest 0 0 1 Light 0 1 0 Not as light 0 1 1 Normal Default 1 0 0 Dark 1 0 1 Darkest Over 1 1 0 Normal **Note:** This is a 6 position switch.
1	0		
0	0		

Unique Switch F:4 — Factory use only

Unique Switch F:5 - Printer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	Factory use only	
2	0	Print for saving the toner	Switch 2 1 Settings 0 0 Off 0 1 25 % 1 0 50 % 1 1 75 %
1	0		
0	1	Primary copying upon printing the received data 0: No 1: Yes	Setting to “1” is able to precede the copying between the page of the received document upon receiving the data into fax’s memory.

Unique Switch F:6 - Printer

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	0	LED print head exposure time adjustment Note: This setting effect after turn the power switch off/on.	Switch 3 2 1 0 0 0 0 0 48 µsec default setting 0 0 0 1 16 µsec 0 0 1 0 24 µs 0 0 1 1 32 µs 0 1 0 0 40 µs 0 1 0 1 48 µs 0 1 1 0 56 µs 0 1 1 1 64 µs 1 0 0 0 72 µs 1 0 0 1 80 µs 1 0 1 0 88 µs 1 0 1 1 96 µs 1 1 0 0 104 µs 1 1 0 1 112 µs 1 1 1 0 120 µs 1 1 1 1 128 µs
2	0		
1	0		
0	0		

Unique Switch F:7 and F:9 — Factory use only

Unique Switch G:0 - Remote reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	Factory use only	
4	0	Factory use only	
3	1	Factory use only	
2	0	Factory use only	
1	1	Manual transmit/receive using Start key after off-hook of second phone 0: No 1: Yes	Determines if transmitting or receiving manually using Start key after off-hook of the second phone.
0	1	Silent detection 0: Off 1: On	Enabled or disables silent detection during Ans/Fax ready mode.

Unique Switch G:1 - Remote reception

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Flash key On/Off time	Sets the flash time when the Flash key is depressed. Switch 7 6 5 4 3 2 1 0 Time 0 0 0 0 0 0 0 0 0 ms 0 0 0 0 0 0 0 1 10 ms 0 0 0 0 0 0 1 0 20 ms ⋮ 0 0 0 0 1 0 0 1 900 ms ⋮ ⋮ ⋮ 1 1 1 1 1 1 0 0 2520 ms 1 1 1 1 1 1 0 1 2530 ms 1 1 1 1 1 1 1 0 2540 ms 1 1 1 1 1 1 1 1 2550 ms
6	0		
5	0		
4	0		
3	1		
2	0		
1	0		
0	1		

Unique Switch G:2 ~ G:9 — Factory use only

Unique Switch H:0 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	1	LCD error message 0: Remains in LCD 1: Returns to standby	After an error message has printed, the setting of this switch determines if the error message will remain in the display.
5	1	Buzzer/keypad volume OFF Low Medium Maximum	
4	0	0 0 1 1 0 1 0 1	
3	0	Factory use only	
2	0	Factory use only	
1	0	Factory use only	
0	0	Factory use only	

Unique Switch H:1 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	1	Print the frame interval time on the T30 monitor. 0: No 1:YES	
4	0	Factory use only	
3	0	Factory use only	
2	0	Secure RX document to polling document 0: No 1: Yes	Retrieve the document received in the SecureMail box by polling transmission.
1	0	RX document to polling document 0: No 1: Yes	Retrieve the document received in the memory by polling transmission.
0	0	Factory use only	

Unique Switch H:2 — Factory use only

Unique Switch H:3 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Use the **REDUCT** key for confirmation stamp key 0: No 1: Yes	When this switch is set to "1", the **REDUCT** key functions as a confirmation stamp key in the Fax mode. **Note:** In U.K. and Germany, do **not** set this switch to "1", because the accessing to the Cable & Wireless (Mercury) or Ground key function may be malfunction.
6	0	Print consumable order sheet (drum) 0: No 1: Yes	When the drum cartridge has reached its design life, print the consumable order sheet out.
5	0	Print consumable order sheet (toner) 0: No 1: Yes	When the toner cartridge is empty, print the consumable sheet out.
4	0	Factory use only	
3	1	Continuous polling daily 0: One day 1: Every days	Set a time limit for continuous polling.
2	0	F-code Rx message print 0: Yes 1: No	Print message when the document received in the F-code box.
1	1	Factory use only	
0	0	Factory use only	

Unique Switch H:4 - Operation

Switch	Initial Setting	Adjust	Usage/Comments
7	0	Factory use only	
6	0	Factory use only	
5	0	When the Department code feature in ON, it affect to the manual reception 1: Yes 0: No	When this switch set to "1", the machine asks department code when one using the manual reception.
4	0	When the Department code feature in ON, it affect to the manual transmission 1: Yes 0: No	When this switch set to "1", the machine asks department code when one using the manual transmission.
3	0	Factory use only	
2	1	Priority of consumable order sheet printing 1: Print immediately 0: Print after the current printing job completed	When the drum cartridge has reached its design life, or the toner cartridge is empty, the machine prints a consumable order sheet (see unique switch H:3). When this switch is set at "0", the machine not print consumable order sheet until the current printing job is finished.
1	0	Factory use only	
0	0	Factory use only	

Unique Switch H:5 ~ J:9 — Factory use only

3.8 Printer maintenance mode

In case of followings, use this mode.

- When replaced the Fuser unit or Transfer roller.
- When “Please Call Service” message appear in the LCD, access the this mode to determine the cause of the “Please Call Service” error message.

❑ *When you replace the Fuser unit or Transfer roller, you must set the count of replacement manually*

To access the printer maintenance modes:

Note: Do not set the these counters if you did not replace the Fuser unit or Transfer roller.

1. Press **PROGRAM**, *****, **6**.
   The mode are contained within two main menu level.

```
Set Replace Counter
        Program/Enter
```

```
Service Call
        Program/Enter
```

2. Press **PROGRAM** until “Set replace counter” appears in the LCD and then press **ENTER**.
3. The LCD shows:

```
Replace Fuser
        Program/Enter
```

4. If you replaced the fuser unit, press **ENTER**. Otherwise, press **PROGRAM**.
5. The LCD shows:

```
Replace Transfer
        Program/Enter
```

6. If you replaced the transfer roller, press **ENTER**.
5. Press **STOP** to exit this mode.

❑ *When “Please Call Service” message is displayed in the LCD*

To access the printer maintenance modes for determine the cause of the “Please Call Service” error message.

1. Press **PROGRAM**, *****, **6**.
   The mode are contained within two main menu level.

```
Set Replace Counter
        Program/Enter
```

```
Service Call
        Program/Enter
```

2. Press **PROGRAM** until “Service Call” appears in the LCD and then press **ENTER**.
3. The printer error message will be displayed.
   For example, when “Heater error” and “Drum Fuse Error” has occurred, the LCD will show:

```
Service Call  :  2
Heater Error
```

4. Press **PROGRAM** to show the other printer error message.
5. Press **STOP** to exit this mode.

Note: See page 4-20 for the printer error messages and an explanation of each are outlined.

3.9 Print Program Mode List

This mode causes the unit to print a summary list of the unit's programming modes. To print the program mode list press **PROGRAM, *, 8**. After printing the unit will return to standby.

```
Program List
   ** Printing **
```

3.10 Test Modes

This mode offers the ability to print a test pattern and monitor certain unit output functions. Included are life monitor, and life monitor clear, printer test, stamp test and a background level setting.

1. Press **PROGRAM**, *****, **9** to enter the test mode.
   Press **PROGRAM** to scroll through the test modes.

```
Life Monitor
      Program/Enter
```

```
Printer Test
      Program/Enter
```

```
Stamp Test
      Program/Enter
```

```
Feeder Test
      Program/Enter
```

```
Set Background Level
      Program/Enter
```

2. Press **ENTER** to entry the desired test mode.

3.10.1 Life Monitor

The life monitor displays the current software version, the total number of pages scanned, printed, and transmitted, the number of drums replaced and the total page count on the current drum.

Note: The All RAM Clear setting does not clear the life monitor. To clear, see below.

1. Press **PROGRAM, *, 9, ENTER.**

```
Life Monitor

```

2. Press **One-touch A-D** to select the desired display. Press **STOP** to exit the test mode.
   The following options are available:

- **One-touch A** = displays software version
- **One-touch B** = displays total pages scanned
- **One-touch C** = displays total pages printed
- **One-touch D** = displays total pages transmitted
- **One-touch E** = displays drum replaced
- **One-touch F** = displays total pages printed on current drum
- **One-touch G** = displays toner replaced count
- **One-touch H** = displays toner life
- **One-touch I** = displays fuser replaced count
- **One-touch J** = displays fuser life
- **One-touch K** = displays transfer roller replaced count
- **One-touch L** = displays transfer roller life

If One-touch A is selected, you'll see the following message on the LCD.

```
Board Number?
```

Use the numeric keypad to select the optional board number as shown in the following table.

ROM	Numeric keypad
Flash ROM on Main control PCB	0
Built-in CPU ROM	* (asterisk)

The software version of each board will be shown on the LCD.

```
Board Number?
0:D71B GBR A0A0A0
```

The left most character on the lower line shows the board number selected.

Press **STOP** to exit the test mode

3.10.2 Printer Test

The Printer Test mode offers three different test patterns.

1. Press **PROGRAM, *, 9, PROGRAM**, then press **ENTER**.

```
Pattern
```

2. Press One-touch **A, B or C** to select the desired pattern.

```
Pattern            A
   ** Printing  **
```

   The selected pattern will print continuously.

   Note: Press **STOP** to cancel the printing.

3. To select another pattern, repeat the step 2. Otherwise, proceed to step 4.
   Or press **STOP** to exit the printer test mode.
4. Press **STOP** to return to standby.

3.10.3 Stamp Test

This mode tests the operation of the stamp.

1. Insert one sheet of paper into the document feeder of the fax machine.
2. Press **PROGRAM, *, 9, PROGRAM** two times, then press **ENTER**.

```
Stamp Test
```

3. Press **START.** The page will be stamped while it is fed through the document feeder.
4. Press **STOP** to return to standby.

3.10.4 Feeder test

The feeder test discharges all documents in the automatic document feeder at a constant speed and displays the document total in the LCD.

1. Load test documents into the automatic document feeder.
2. Press **PROGRAM, *, 9, PROGRAM** three times, then press **ENTER**.

```
Feeder Test
```

3. Press **START** to start the feeder test.
4. Press **STOP** to exit the test mode.

3.10.5 Set Background Level

The background level is an established threshold used to help measure the reflective ability of a scanned document. This threshold can change if the scanner lamp, CCD, or the ballast is replaced; therefore this mode should be used to reset the threshold when these items are changed. The All RAM Clear function can also be used to reset the background level, however, the Set Background Level mode allows the level to be set without erasing memory contents.

Note: The background seal at the inside of the scanner cover should be cleaned prior to setting the background level to ensure an accurate reading.

1. Press **PROGRAM, *, 9, PROGRAM** four times, then press **ENTER**.

```
Set Background Level
 **   Complete   **
```

3.11 Print Machine Parameters, Memory Switch and Unique Switch Settings

This function instructs the unit to print a list of the machine parameter, memory switch and unique switch settings. The list shows the default and current settings for each. After printing, the unit returns to standby.

1. Press **PROGRAM, *, A**.

```
Memory Switch
   ** Printing **
```

3.12 Factory Functions

This factory functions provide several machine testes including LED and LCD tests, a keypad test, memory tests, a RTC test, and optional RS-232C test port test.

1. Press **PROGRAM**, ***, B**.

```
Factory Function
```

2. To select the desired test mode, press **One-touch A-H** as indicated in the following list.

   (A detailed explanation of each mode follows this list.)

- **One-touch A** = prints a list of the Factory Functions
- **One-touch B** = LED test
- **One-touch C** = LCD test
- **One-touch D** = Key Panel test
- **One-touch E** = SRAM check
- **One-touch F** = DRAM check
- **One-touch G** = RTC test
- **One-touch H** = RS-232C port test (optional RS-232C port required)

3.12.1 Function List

Press **PROGRAM**, *****, **B**. Then press **One-touch A**. A list of the Factory Functions will print. After printing the unit will return to standby.

3.12.2 LED Test

1. Press **PROGRAM**, *****, **B**. Then press **One-touch B**. All LEDs will turn on.
   Pressing **START**, toggle between All LEDs turn on and off.

2. Press **STOP** to exit the test mode.

3.12.3 LCD Test

This mode displays two test patterns in LCD.

1. Press **PROGRAM**, *****, **B**. Then press **One-touch C**.

   ```
   LCD Test
   ```

   Pressing **START**, all dots turn on.

   Next pressing **START**, all dots turn off.

   ```
   
   ```

   Finally pressing **START**, the alphabetical characters are shown in the LCD.

   ```
   ABCDEFGHIJKLMNOPQRST
   UVWXYZabcdefghijklmn
   ```

2. Press **STOP** to exit the test mode.

3.12.4 Key Panel Test

1. Press **PROGRAM, *, B**. Then press One-touch **D**.

   ```
   Key Panel Test
   ```

2. As each button on the keypad is pressed, a representative name as show in the following table will be displayed.

Key	**Indication in LCD**	**Key**	**Indication in LCD**
REVIEW COMMAND	Review	BROADCAST	Broadcast
MONITOR CALL	Monitor/Call	COMMUNICATION OPTIONS	Com. Option
RESOLUTION	Mode	GROUP DIAL	Group
CONTRAST	Contrast	SPEED DIAL /TEL INDEX	Speed
◄/NEXT	<	MEMORY TRANSMIT	Memory Transmit
►/PROGRAM	>	BOOK DOC SIZE	Book Doc Size
ENTER	Enter	CLEAR ALL	Clear All
CANCEL	Cancel	STOP	Stop
REDUCT%	Reduc %	START	Start
ENLARGE%	Enlarge %	Numeric keys 0 through #	0 through #
SORT COPY	Sort Copy	One-touch keys 01 through 72	[01] through [72]
PAPER SIZE?	Paper size?	Programmable One-touch keys 73 through 80	[73] through [80]

3. Press **STOP** twice to cancel the key panel test.

3.12.5 SRAM Check

This mode is used to test the SRAM memory where user programmed parameters such as date, time, TTI, etc are stored.

Note: When this test is executed, an All RAM Clear will be performed by the unit.

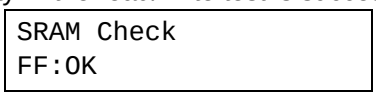
The All RAM Clear erases all user settings and resets all memory switches, machine parameters and unique switches to factory defaults.

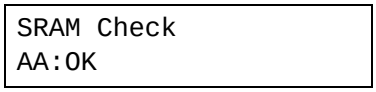
1. Press **PROGRAM, *, B**. Then press One-touch **E**.

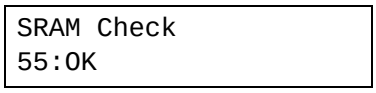
2. Press **ENTER**.

   Note: To finish the operation without performing SRAM check, press **STOP**.

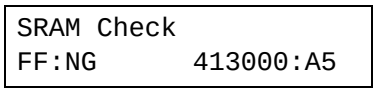
   The values FF, AA, 55, and 00 are written to, then read from, memory. The results are shown in the display. If the read/write test is successful the display will show “OK” after each value.







   If some portion of the read/write test fails the display will show “NG” after the failed value.



3. Upon completion, the unit will return to the standby mode.

3.12.6 DRAM Check

This mode is used to test the DRAM memory, or document memory.

Note: When this test is performed, an All DRAM Clear will be performed by the unit. The All RAM clear erases all user settings and resets all memory switches, machine parameters and unique switches to factory defaults.
This is a read/write test that requires a few moments to complete.

Note: Perform a DRAM test whenever a memory upgrade is added to the unit.

1. Press **PROGRAM, *, B**. Then press One-touch **F**.

```
DRAM Check
```

2. Enter One-touch A, B, C, D, depending on the amount of DRAM in the unit. Please refer to the following table:

   A: Standard 2 MB
   B: If 2 MB upgrade board is installed
   C: If 4 MB upgrade board is installed
   D: If 8 MB upgrade board is installed

   Then press **START**.

   The values FF, AA, 55, and 00 are written to, then read from, memory. The results are shown in the display.

   If the read/write test is successful, the display will show “OK”.

```
M:OK
```

```
M:OK   IC1:OK
```

```
M:OK   IC1:OK  IC2:OK
```

```
M:OK   IC1:OK  IC2:OK
       IC3:OK  IC4:OK
```

   If some portion of the read/write test fails, the display will show “NG”.

```
M:NG
```

3. Press **STOP** to exit the test mode.

3.12.7 RTC(real time clock) Test

This test mode is not applicable to field service of the OKIOFFICE 120 model.

3.13 Line Tests

This mode offers several internal tests and ability to monitor certain unit output functions. Included are relay tests, modem signal output monitoring, and DTMF output monitoring.

1. Press **PROGRAM, *, C** to enter the test mode.
   The tests are contained within three main menus.

```
Relay Test
```

```
Tonal Test
```

```
DTMF Test
```

3.13.1 Relay Test

This mode tests the on/off operation of various relays and switches.

1. Press **PROGRAM, *, C, ENTER**.
   A list of abbreviations representing the various relays and switches will appear in the display.

```
 CML  H  L  S  DP
 C24
```

2. The one-touch keys are used to toggle the various relays and switches on and off as outlined on the following table. When a relay or switch is turned on, an asterisk(*) will appear to the left of the item's abbreviation in the LCD. For example, pressing **One-touch A** turns the CML relay on. An asterisk appears to the left of CML in the display.
   Press **STOP** to exit the test modes.

```
*CML  H  L  S  DP
 C24
```

Press the corresponding one-touch key to toggle the test item on or off.

Test function	One-touch key	Test function	One-touch key
CML relay – on/off	A	S relay – on/off	D
H/L relay – on/off	B	DP relay – on/off	E
disable	C	CONT24V – on/off	F

3.13.2 Tonal Signal Test

The tonal signal test permits the unit's output tones to be monitored.

Note: To monitor the tones, an external monitoring device must be connected to the telephone line jack.

1. Press **PROGRAM, *, C, PROGRAM, ENTER**.

2. To output a desired tonal signal, press the corresponding numeric keypad and one-touch button as shown outlined on the following below. For example, to monitor the 2100 Hz CED tone, press **One-touch I**. The output signal will begin. A different output signal can be selected by pressing corresponding numeric keypad and one-touch button.

Note: It may take several moments for output signal to change.

Signal	One-touch key	Signal	One-touch key
None (stop signal)	A	FSK black (all 1)	K
462 Hz tone	B	2400 bps	L
1080 Hz tone	C	4800 bps	M
1300 Hz tone	D	7200 bps (V.29)	N
1650 Hz tone	E	9600 bps (V.29)	O
1700 Hz tone	F	7200 bps (V.17)	P
1800 Hz tone	G	9600 bps (V.17)	Q
1850 Hz tone	H	12000 bps (V.17)	R
2100 Hz tone	I	14400 bps (V.17)	S
FSK white (all 0)	J		

3. The black and white ratio of the 2400-14400 bps picture data output can be changed by pressing the **PROGRAM** key.

4. Press **STOP** twice to exit the test mode.

3.13.3 DTMF Output Test

The DTMF output test permits the unit's DTMF tones to be monitored.

Note: To monitor the tones, an external monitoring device must be connected to the telephone line jack.

1. Press **PROGRAM, *, C**, **PROGRAM** two times, then press **ENTER**.

```
DTMF
```

2. Pressing a button on the numeric keypad or one-touch button will produce DTMF tones according to the following table.

Signal	Numeric key	Signal	Numeric
DTMF0 (941 Hz + 1336 Hz)	0	DTMF* (941 Hz + 1209 Hz)	*
DTMF1 (697 Hz + 1209 Hz)	1	DTMF# (941 Hz + 1477 Hz)	#
DTMF2 (697 Hz + 1336 Hz)	2	ROW1 (697 Hz)	A
DTMF3 (697 Hz + 1477 Hz)	3	ROW2 (770 Hz)	B
DTMF4 (770 Hz + 1209 Hz)	4	ROW3 (852 Hz)	C
DTMF5 (770 Hz + 1336 Hz)	5	ROW4 (941 Hz)	D
DTMF6 (770 Hz + 1477 Hz)	6	COL1 (1209 Hz)	E
DTMF7 (852 Hz + 1209 Hz)	7	COL2 (1336 Hz)	F
DTMF8 (852 Hz + 1336 Hz)	8	COL3 (1477 Hz)	G
DTMF9 (852 Hz + 1477 Hz)	9	COL4 (1633 Hz)	H

3. Press **STOP** to exit the test mode.

3.14 Mirror Carriage Transfer Mode

Important: The fax's mirror carriage is fixed using the four screws at transferring.
When installing the fax, remove the four mirror carriage mounting screws and turn the power on. Then perform this mode.

1. Press **PROGRAM**, *****, **E.**

```
Mirror Position :On
        Program/Enter
```

2. Press **PROGRAM** to change the setting is "OFF" and then press **ENTER**.

Important: If reshipping, turn on this mode to move the mirror carriage to the transport position. Then mount the mirror carriage using four transport screws.

3.15 Consumable order sheet

When the drum cartridge has reached its design life or the toner cartridge is empty, the machine prints the consumable sheet.
Note: This feature's default setting is OFF (not print the consumable sheet). (See Unique Switch H:3 to set ON this feature.)

If using this feature, you should be enter following items:

- Distributor's name
- Customer's name
- Customer's phone number
- Customer's address
- Customer's code
- Fax machine's serial number

Here's how:

1. Press **PROGRAM**, *****, **L,** to clear the junk data, if necessary.

2. Press **PROGRAM**, *****, **F.**

   ```
   DIST NAME  :Upper
   _
   ```

   Enter the distributor's name. The name may be up to 30 characters in length.

   You enter letters and other non-numeric characters through the one-touch keys.

   To word "Upper" means the machine is currently set for entering only upper-case letters. If you press **R**, the machine will see set it as an R (not an r).
   To change it so that pressing a one-touch key will produce a lower-case letter rather than an upper-case letter, press **ALPHABET**.

   To switch back for upper-case entries, press **ALPHABET**.

   To enter spaces, punctuation and symbols, press **CODE** then enter the characters shown on the one-touch keypad you want.

   Note: If you make a mistake or want to erase characters entered in a previous setting, press **CANCEL** to erase leftward. Or, if you want to change just one character in the number, press ◄ to move the cursor leftward, or ► to move it rightward, to that character and press **CANCEL** to erase it. Then re-enter until the number is just as you want it.

3. Press **ENTER** to save the distributor's name and continue.

4. The LCD will show:

   ```
   CUST CODE  :Upper
   _
   ```

   Enter the customer's code. The customer's code may be up to 10 characters in length.

5. Press **ENTER** to save the customer's code and continue.

6. The LCD will show:

   ```
   CUST NAME  :Upper
   _
   ```

   Enter the customer's name. The customer's name may be up to 30 characters in length.

7. Press **ENTER** to save the customer's name and continue.

8. The LCD will show:

   ```
   Address    :Upper
   _
   ```

   Enter the customer's address. The customer's address may be up to 30 characters in length.

9. Press **ENTER** to save the customer's address and continue.

10. The LCD will show:

```
Customer's Tel
_
```

Enter the customer's phone number. The phone number may be up to 20 characters in length.

11. Press **ENTER** to save the customer's phone number and continue.

12. The LCD will show:

```
Serial No. :Upper
_
```

Enter the fax machine's serial number. The number may be up to 18 characters in length.

13. Press **ENTER** to save the fax machine's serial number and continue.

14. The LCD will show:

```
Print Order Sheet
          Enter/Stop
```

If you want to print the consumable order sheet, press **ENTER**.

Otherwise, press **STOP**. The machine will return to the standby mode.

3.16 Clear consumable order sheet

The consumable order sheet keeps several items (see "Consumable order sheet," page 3-62). This mode clears these items.

1. Press **PROGRAM, *, L.**

```
Reset Order Sheet
Check Program/Enter
```

2. Press **ENTER**. The items will be reset.

Note: To finish the operation without performing initialization, press **STOP** or **PROGRAM**.

3.17 User Settings List

This mode is used to print a list of all of user settings. To print a list of user settings:
Press **PROGRAM**, *****, **G.**

3.18 Clear Life Monitor

The life monitor keeps several counts(see "Life Monitor," page 3-51). This mode clears these counters.

1. Press **PROGRAM, *, H.**

```
Clear Life Monitor
      Program/Enter
```

2. Press **ENTER.**

```
Clear Life Monitor
Check Program/Enter
```

3. Press **ENTER**. The counters will be reset.

Note: To finish the operation without performing initialization, press **STOP** or **PROGRAM**.

3.19 DRAM Clear

Note: Perform a DRAM clear whenever a memory upgrade is added to the unit or the DRAM is replaced.

1. Press **PROGRAM**, *****, **I.**

```
DRAM Clear
        Program/Enter
```

2. Press **ENTER**.

```
DRAM Clear
Check   Program/Enter
```

3. Press **ENTER**. The DRAM will be clear.

   Note: To finish the operation without performing initialization, press **STOP** or **PROGRAM**.

3.20 JP4, JP5 Battery Backup

Jumper JP4 on the main control PCB is used for battery back-up of the SRAM. All user programmed data and internal memory switch settings are held in SRAM. Removing JP4 will initialize the SRAM. If the power is turned off, the battery will provide up to five years of back-up when fully charged.

Jumper JP5 on the main control PCB is used for battery back-up of the DRAM. Removing JP5 will initialize the DRAM. If the power is turned off, the battery will provide up to 100 hours of back-up when fully charged.

Section4
Troubleshooting Procedures

4.1 Troubleshooting Outline

Before troubleshooting a unit check the following:

- Is the power cord correctly connected to the machine?
- Is the telephone handset and the telephone line cord connected correctly?
- Is there paper in the paper cassette?
- Are all covers closed correctly?

Before removing any portions of the machine or making any adjustments be sure the power cord is disconnected from the unit. Check the following:

- The power source should be rated according to unit specifications.
- The unit should not be connected to an electrical circuit with other equipment or where voltages may vary.
- The unit should be installed on a flat, level surface.
- The ambient temperature and relative humidity surrounding the unit should be 50°F to 89.6°F (10° C to 32°C) at 20% to 80% humidity with no condensation.
- The unit should be located in a well ventilated area.
- The unit should receive necessary cleaning and maintenance.

The unit should be installed:

- Away from heat sources and heating or cooling vents.
- Away from water heaters, steam generators, humidifiers or other areas of high humidity.
- Away from dusty areas.
- Away from areas where chemical fumes or gasses are generated or may collect.
- Away from areas exposed to direct sunlight.

Check the consumable:

- Verify that the recording paper supply is adequate and that it is high- or standard-quality 20lb. xerographic bond.
- Verify that the recording paper has been stored away from moisture and damp areas.
- Verify that the recording paper has not been damaged in any way.

4.2 Recording Paper Jam

Symptom: Recording paper did not exit paper cassette properly or jam occurred in print area.

Suggested corrective action:

1. Verify that the recording paper conforms to the type specified for use in the machine and that has not been damaged or exposed to moisture.
2. Make sure the recording paper is properly loaded into the multipurpose tray and cassette and the cassette is properly closed.
3. Clean the paper feed rollers of any paper dust build-up. (Clean using a lint-free cotton cloth moistened with a cleaning designed for use on rubber rollers.) Replace the paper feed rollers if worn or damaged.
4. Check the cassette pressure springs for proper installation and operation.
5. Verify that the paper has reached sensor PSS (see page 2-7). If it has, check the operation of PSS.
6. Verify the paper take up roller is turning. If not check the main motor. If the main motor is turning, check the operation of the paper feed solenoid PFCL (see page 2-2).
7. If the main motor does not turn, replace the main motor, the power supply unit or the main control PCB.
8. Check for obstructions in the paper path.

Symptom: Recording paper jammed as it was exiting the unit into receive paper tray.

Suggested corrective action:

1. Check for obstruction in the paper path.
2. Check the paper discharge sensor (PDS) for proper operation.
3. Clean the exit roller using a lint-free cloth moistened with a cleaning solution designed for use on rubber rollers. Replace the exit roller if worm or damaged.
4. Verify the fuser rollers are clean and not damaged. If worn or damaged, replace the fuser.

4.3 Document Feeder Jam

Symptom: Original document did not feed into or exit scanner properly, document feeder error message.

Suggested corrective action:

1. Verify the original documents conform to the specifications designed for use in the machine and that they are not damaged in any way.
2. Verify the number of documents placed into the feeder does not exceed its maximum capacity.
3. Verify the scanner cover is closed properly.
4. Remove any foreign substances from inside the scanner area.
5. Verify that all of the document feed rollers are clean and not damaged. Clean using a lint-free cotton cloth moistened with a cleaning solution designed for use on rubber rollers. Replace the rollers if worn or damaged.
6. Check the operation of DS1 at connector P14, pin 4-6, on the main control board.
7. Check the operation of the separator roller, and the pick-up roller.
8. Verify the operation to the ADF Motor at connector P20A, pins 1-4 on the main control board.
9. Verify that the document feeds into the unit and stops. If the document does not stop, check the operation of DS2 at connector P15, pin 1-2, on the main control board.
10. Check all connectors and cables.
11. Check the operation of the main control board.

4.4 Document Feeder Multi-feeding or Skew

Symptom: Two or more pages of a multi-page document are fed at once.
The document is fed on the skew. Slight skewing may sometimes occur.

Suggested corrective action:

1. Verify that the original documents conform to the specifications designed for use in the machine and they are not damaged in any way.
2. Verify the pages of the document are not stuck together from glue, wet or damp correction fluid, tape, etc.
3. Verify the feed roller, separator roller and retard roller are clean and not damaged. Clean using a lint-free cotton cloth moistened with a cleaning solution designed for on rubber rollers. Replace these items if worn or damaged.

4.5 Mirror Carriage Error

Symptom: The mirror carriage doesn't move.

Suggested corrective action:

1. Verify that the four transport screws have been removed. Remove four transport screws if they are not removed. Then press **program, *, E** to turn off the mirror carriage carry mode.
2. Check the setting of unique SW E:2, bit 0-1.
3. Verify that the timing belt doesn't out of joint.
4. Check the operation of HOME sensor at connector P11, pin 1-3, on the connect PCB. (See page 2-1.)
5. Check the operation of END sensor at connector P12, pin 1-3, on the connect PCB. (See page 2-1.)

4.6 Transmit Error

Symptom: Check message prints after attempting transmission.

Suggested corrective action:

1. Reference the error code on the check massage or the journal to the error code list contained in this section.

4.7 Transmit Black Lines

Symptom: A black line appears on all documents transmitted or copied.

Suggested corrective action:

1. Print a document from memory (mode list, journal, etc.) to determine if the problem is in the scanner. If the black line in not on the memory print outs, the problem is not in the scanner.
2. Check for a foreign object in the feeder.
3. Clean the contact glass.
4. Check for wire or other foreign object obstructing the light path to the CCD.

4.8 Cannot transmit

Symptom: The unit will not transmit

Suggested corrective action:

1. Verify the telephone line cord is properly installed and plugged into the correct type of wall jack.
2. Check for dial tone at the unit and wall jack. If no dial tone is present at the unit, check the NCU PCB.
3. Verify that the correct telephone number has been dialled or that the correct telephone number is programmed in the autodialler.
4. Insure Security TX turned off.
5. Place a call through the monitor and check for excessive noise or interference on the telephone line.
6. Verify that the remote location is capable of receiving by checking the following:
   6.1 Place a call to the remote machine and verify that if auto answers.
   6.2 Insure that the remote machine does not have closed network or block junk fax turned on.
   6.3 Transmit to another location.
7. Check the operation of NCU PCB and the main control PCB.

4.9 Receive Errors

Symptom: Check message prints after attempting a reception.

Suggested corrective action:

1. Reference the error code on the check message or the journal to the error code list contained in this section.

4.10 Will not Auto-Answer

Symptom: The unit rights but will not auto-answer.

Suggested corrective action:

1. Check the power cord and AC switch.
2. Verify the telephone line is properly installed.
3. Verify recording paper in the paper cassette.
4. Check the memory capacity. The unit will not answer incoming calls if memory full.
5. Check the number of rings the is set to answer on. If set to a high number of rings, the transmitting unit may “time out”.
6. Insure the unit is in the Fax Ready mode.
7. Check the operation of the NCU PCB and the main control PCB.

4.11 Clearing Jammed Paper

If the original document jams

1. If an original document jams, the LCD will show:

```
Document Jam
ContStor Enter/Cancl
```

If you do wish to continue the operation, press **ENTER** and proceed step 2.
To abort the operation, press **CANCEL.** This will delete from memory all pages stored during this operation, and the machine will return to the standby mode.

Note: If you wait more than 60 seconds without pressing any key, the machine will delete from memory all pages stored during this operation and the machine will return to the standby mode.

2. The LCD will show which page (i.e., which page number) is jammed. To continue the scanning from jammed page, press **START** after clearing the document jam.

```
P02.Reset Document
Press Start Key
```

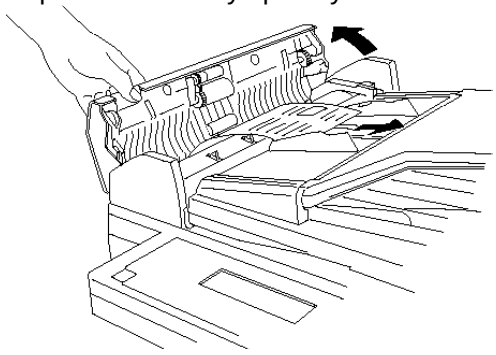
Note: If you wait more than 60 seconds without pressing any key, the machine will begin to send or copy the document(s) it has.

If you wish to cancel this operation, press **STOP.** The machine will delete all pages from memory then return to the standby mode.

To remove the document:

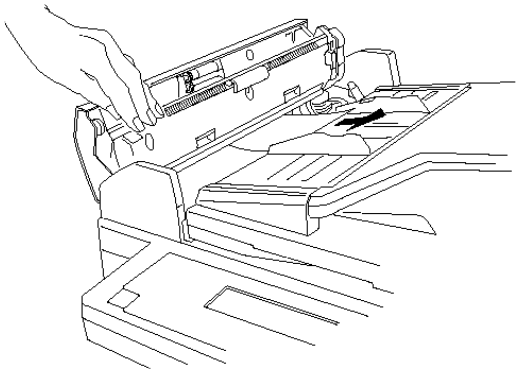
1. Open the scanner cover by holding the scanner cover release.

Important: Hold the cover open. It won't stay open by itself.



2. Lift the original document from the machine.

Note: If you cannot remove the document, open the inner cover as shown at right, then remove original.



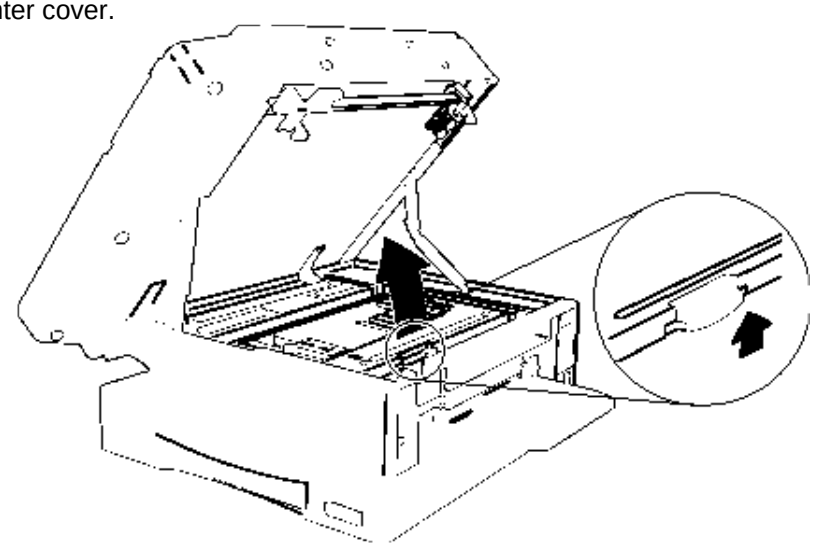
3. Gently close the scanner cover, making sure both sides are snapped down securely.

Note: If the original document has become wrinkled or torn, do **not** re-send it.

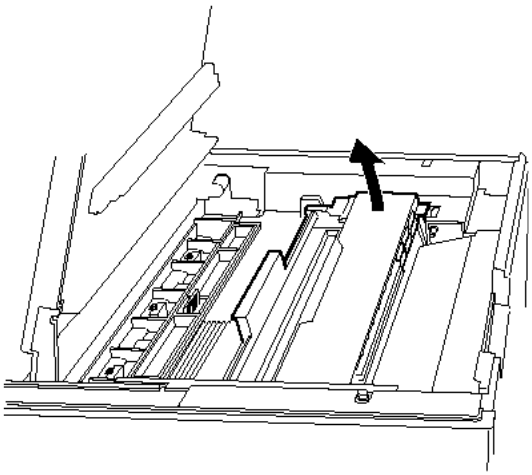
If a printout jams inside your machine

To clear a printout (either a received fax or a copy) jammed inside your fax machine:

1. Open the top cover.
2. Open the printer cover.



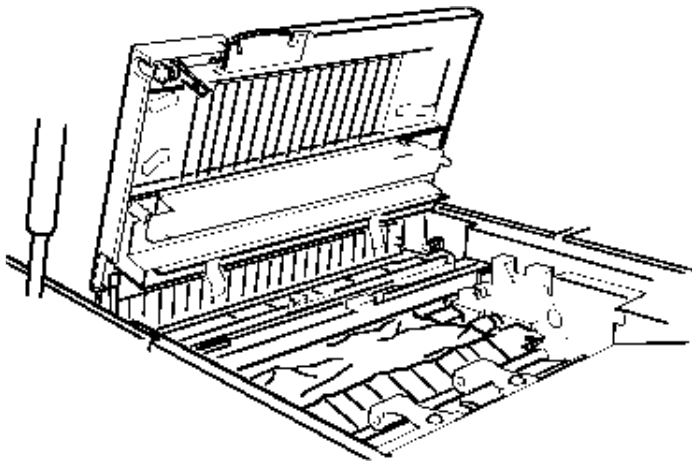
3. Remove the toner and drum cartridge.



Important: Shield the drum cartridge from light, especially strong light. Later, if you have to remove the cartridge from the fax, immediately wrap it in a thick cloth to protect it from light.

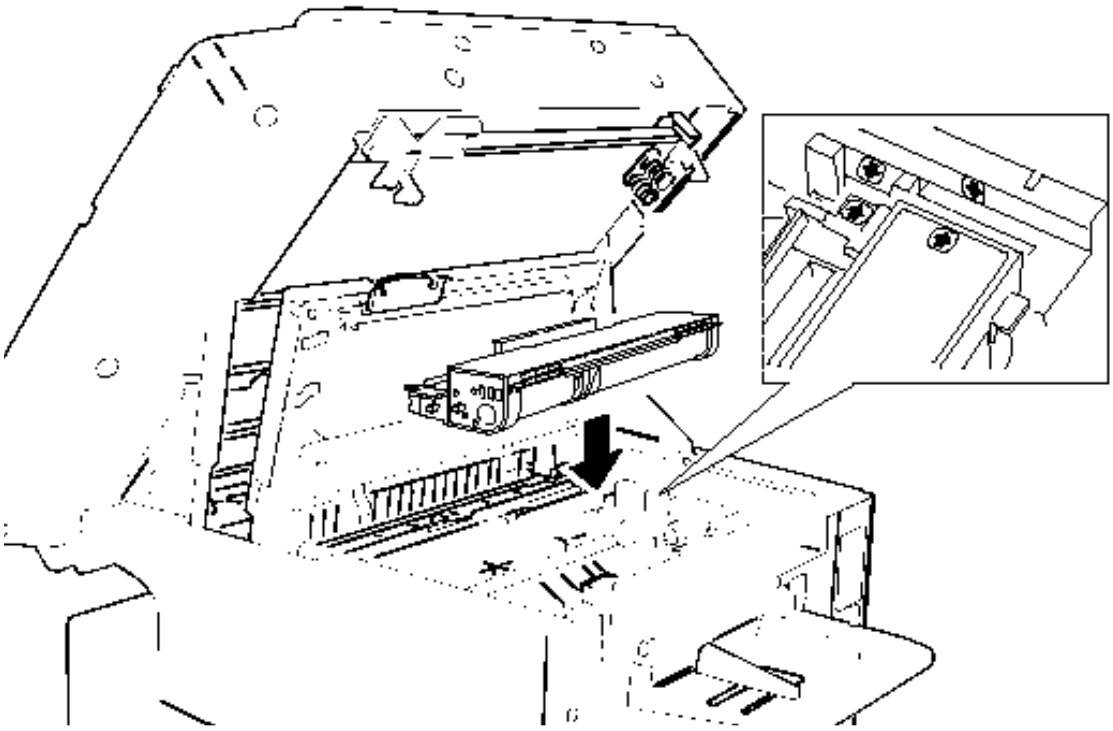
4. Remove the jammed paper.

Caution: The fuser unit becomes very hot. Do not touch any parts in the fixing area when you removing a paper jam.



Note: Avoid getting unfixed toner on your hands.

5. Re-set the toner and drum cartridge.

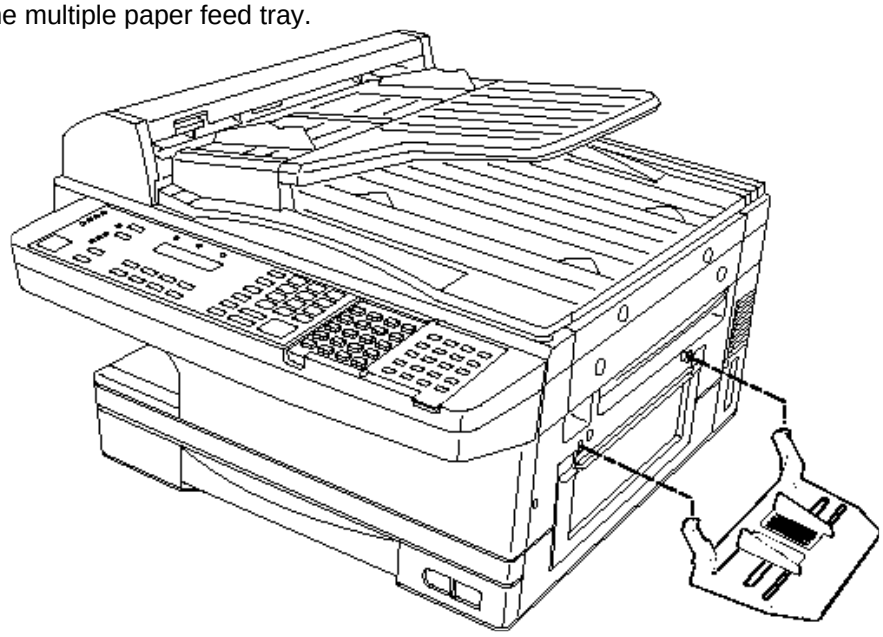


6. Gently close the printer cover.

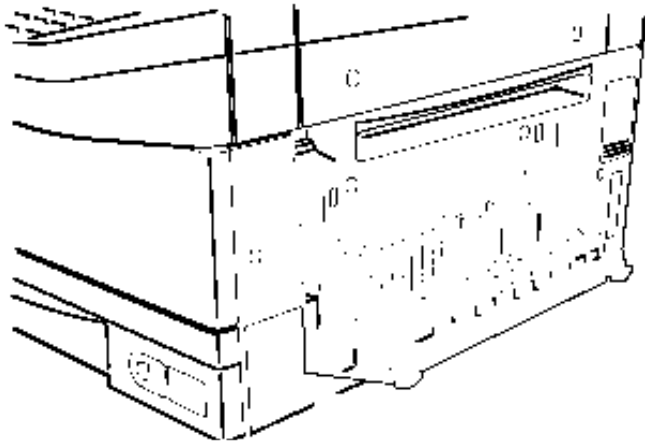
7. Gently close the top cover, pressing firmly on the both sides of the top cover until you hear it click.

If a printout jams inside at a paper side cover

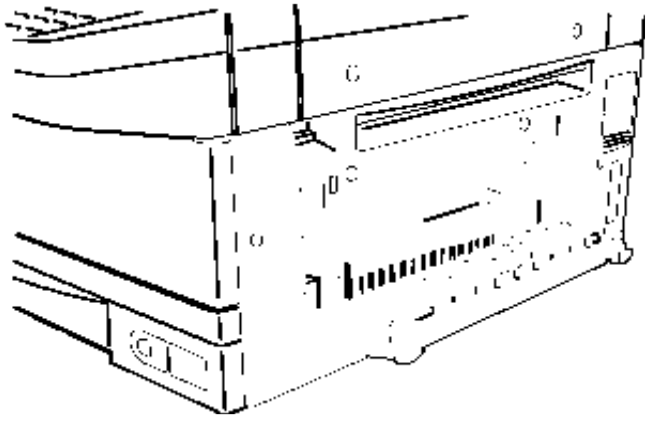
1. Remove the multiple paper feed tray.



2. Open the side cover.



3. Carefully remove the jammed paper(s) from the machine.



4. Close the side cover back into its normal position.

4.12. The Image Quality Problems

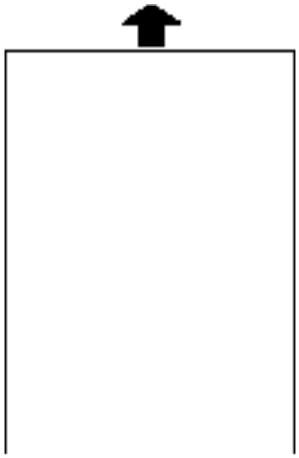
The following provides guidelines for troubleshooting the printer engine and actions to be taken. Before removing any portions of the machine or making any internal adjustments, be sure power to the unit is OFF. Suggested corrective actions should be performed in order as listed. Most conditions can be corrected by performing routine preventative maintenance steps. If printer or print quality problems occur, check the following.

The unit:

1. should have the power cord correctly connected.
2. should be connected to a power source which is rated to machine specifications.
3. should be installed on a flat, level surface.
4. should receive good ventilation.
5. should not be connected to an electrical circuit with other equipment or where voltages may vary.
6. should not be installed near a direct heating or cooling source or vent.
7. should not be exposed to high dust concentration.
8. should not be exposed to direct sunlight
9. should not be exposed to high temperatures, high humidity, steam or chemical fumes.

4.12.1 Blank pages

Symptom: Page is solid white.



Poor development

- Remove the toner cartridge and shake it a few times to redistribute the toner inside. If the problem persists, replace the toner cartridge.
- The drum cartridge or toner cartridge may be not installed correctly. Install each cartridge correctly.

Improper LED exposure

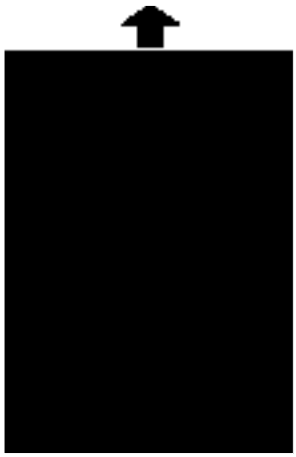
- Replace the LED Print Head Unit.
- Replace the Main Control PCB.

Improper charging

- Replace the High Voltage Unit.
- Replace the Main Control PCB.

4.12.2 Black pages

Symptom: Page is solid black.



Improper LED exposure

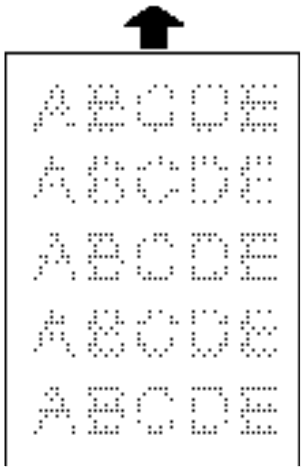
- Replace the LED Print Head Unit.
- Replace the Main Control PCB.

Improper charging

- Replace the High Voltage Unit.
- Replace the Main Control PCB.

4.12.3 Printout too light

Symptom: Printed image is faint or does not print solid.



Poor development

- Remove the toner cartridge and shake it a few times to redistribute the toner inside. If the problem persists, replace the toner cartridge.
- Replace the High Voltage Unit.
- Clean the LED print head.

Defective Drum

- Replace the Drum Cartridge.

Poor image transfer

- Replace the Image Transfer Unit.
- Replace the High Voltage Unit.
- Replace the Main Control PCB.

4.12.4 Printout too dark

Symptom: Printed image is faint or does not print solid.

Poor development

- Remove the toner cartridge and shake it a few times to redistribute the toner inside. If the problem persists, replace the toner cartridge.
- Replace the High Voltage Unit.
- Clean the LED print head.

Defective Drum

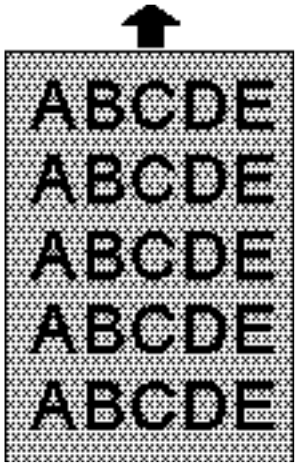
- Replace the Drum Cartridge.

Poor image transfer

- Replace the Image Transfer Unit.
- Replace the High Voltage Unit.
- Replace the Main Control PCB.

4.12.5 Blurred background

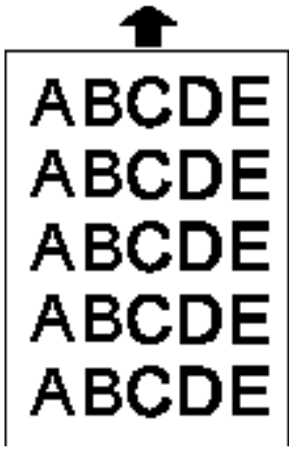
Symptom: Copies show a grey or dark background.



Poor development

- Replace the High Voltage Unit.
- Replace the Main Control PCB.
- Replace the Toner Cartridge.
- Replace the Drum Cartridge.

4.12.6 Uneven print density



Symptom: Image graduates from dark to light across page.

Poor development

- Remove the toner cartridge and shake it a few times to redistribute the toner inside. If the problem persists, replace the toner cartridge.
- Replace the High Voltage Unit.
- Clean the LED print head.

Defective Drum

- If the drum surface for moisture condensation found, leave drum in unit with power on to dry.
- Replace the Drum Cartridge.

Poor image transfer

- Replace the Image Transfer Unit.
- Replace the High Voltage Unit.
- Replace the Main Control PCB.

4.12.7 Irregularities

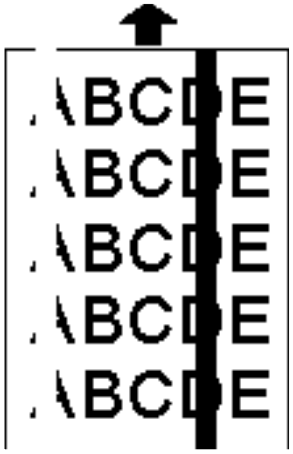
Symptom: Portions of image are broken or missing.

Poor image transfer

- Replace the Image Transfer Unit.
- Replace the High Voltage Unit.

4.12.8 White (Black) Line

Symptom: White or black strip appears vertically through image.



Poor development

- Replace the Toner Cartridge.

Defective Drum

- Replace the Drum Cartridge.

Improper charging

- Replace the Drum Cartridge.

Improper fusing

- Replace the Fusing Unit.

Poor image transfer

- Replace the Image Transfer Unit.

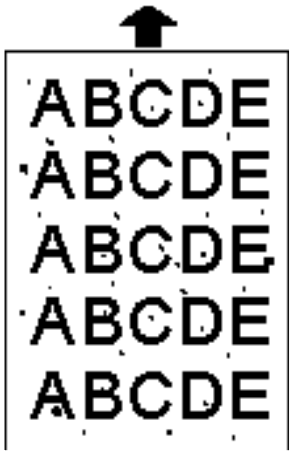
Improper LED exposure

- Replace the LED Print Head Unit.

Poor scanning

- Clean the Contact Grass.

4.12.9 Toner Smudges



Symptom: Background appears “peppered” with black spots.

Poor scanning

- Clean the Contact Grass.

Improper fusing

- Clean the Fusing Rollers. If it is not effective, replace Rollers or the Fusing Unit.

4.13 LCD Error Messages

Your fax machine's LCD messages can help you spot problems.

LCD error messages (Alphabetic list)

What you see on the LCD	*What it means/What to do*
All Commands In Use	Your fax machine has all of its 99 possible delayed commands (an automatic redialling counts as one) stored in memory and cannot accept another. *Delete an existing command by using* **REVIEW COMMANDS**, ***or*** *wait until your fax has completed one of the delayed commands.*
Box In Use	You tried to erase a F-Code box which contains at least one document. *Erase the document(s), then try again.*
Check # Of Pages	You placed fewer pages into your fax machine than you indicated in your page-numbering setting (see operation manual, page 2.35). *Carefully recount the pages in your document, then re-try the transmission, being sure to enter the correct number of pages if you use the page-numbering function.*
Call For Service	The scanner lamp is dim or inoperable. *Make repeated copies to help evaporate any internal moisture. If that doesn't resolve the problem, replace the scanner lamp.*
Check Rx Paper Size **Open&Close Top Cover**	You tried to load the different sized-paper which you've told your fax machine. If you try to use another-sized paper without returning the pin to the proper holes (see pages 1.13–1.14), your fax will sound an alarm and display the this message when you try to print. *Put the pin in the proper holes.*
Close 1st Cassette	The first paper cassette is open or has not been closed securely. *Close it.*
Close 2nd Cassette	The optional second paper cassette is open or has not been closed securely. *Close it.*
Close 3rd Cassette	The optional third paper cassette is open or has not been closed securely. *Close it.*
Close 1st Side Cover	The first paper cassette's side cover is open or has not been closed securely. *Close it.*
Close 2nd Side Cover	The second paper cassette's side cover is open or has not been closed securely. *Close it.*
Close 3rd Side Cover	The third paper cassette's side cover is open or has not been closed securely. *Close it.*
Close Book Cover	The book cover is open or has not been closed securely. *Close it.*
Close Scanner Cover	The scanner cover is open. *Close it.*
Close Top Cover	The top cover is open. *Close it.*
Communication Error	A communication error disrupted the reception or transmission. *If you were transmitting, press* **STOP** *to clear the error message and then re-try the transmission. If you were receiving a fax, try to contact the other person and have him/her re-try the transmission. (The problem may be entirely with his/her machine, phone line, etc.)*
Copying Not Completed	You tried to switch to the fax mode by pressing **COPY/FAX** during copying from the multipurpose tray. *Complete the copying first, then try again.*

Copy Off
You tried to use your fax machine to make a copy, but the unit's *copy protection* feature (page 1.35) is on, preventing such use.
Turn off copy protection.

Document Full
You tried to enter an document into an F-Code box, but the machine has reached its capacity.
Delete documents stored in F-Code boxes until the machine will let you proceed.

Document Jam
An original document jam while you are using the ADF for either faxing or copying.
See page 4-5 for instructions on clearing the jam.

Document Stored
You tried to erase a batch box which contains at least one document.
Erase the document(s), then try again.

Drum Near End
Your drum will need to be replaced soon.
Press **STOP** *to clear the message, then contact your authorised OKI dealer to purchase a new drum cartridge if you do not already have one.*

Enter No. (0-32)
You tried to enter a call group number greater than 32. Your machine can maintain 32 call groups, numbered *1–32* (call group *0* covers all the groups).
Determine the correct call group identifier number and enter it, instead.

Enter No. (1-99)
You entered a number greater than 99 while trying to print a database polling document. Your machine can store 100 files, numbered *0–99,* for database polling.
Determine the file's correct number and enter it.
– or –
You tried to request greater than 99 copies from your fax, which can create 1–99 copies of a document.
Select the correct quantity and enter it.

Enter Scan Size
When you using the flatbed scanner (FBS), you must manually enter the scan size of your document.
Press **BOOK DOC SIZE** *to choose the size.*

Feeder In Use
The command you're trying to enter requires the use of the ADF, which is already in use.
Wait for the machine to stop using the ADF, then try again.

Hang Up Phone
The optional handset is off-hook.
Hang it up, making sure the upper part of the handset presses down on the "hook" button.

In Secure Box
You tried to store a document for polling in an F-Code box which is set to be a security box.
Select an F-Code box which is set to be a bulletin box, then try again.

Insert Document
There was no document in the document feeder when you tried to send a fax or make a copy.
Place a document and try again.

Invalid I. D. Code
The SecureMail passcode you entered isn't valid.
Try re-entering your SecureMail passcode.

Invalid Number
You pressed a key which has no function during the current operation.

Invalid Passcode
The protection passcode you entered isn't valid.
Repeat the operation, entering the correct protection passcode.

Line Busy
You tried to erase a document which someone is polling from your machine.
Wait for the fax to complete the polling operation, then try again.

Memory Overflow
Enter Or Cancel
During transmission (or copying), you tried to enter more pages into memory than your fax could store.
Press **ENTER** *to tell your fax to keep as many pages in memory as possible, or press* **CANCEL** *to delete from memory all pages stored during this operation (but not previous operations).*

Mirror Carriage Error	The mirror carriage of your machine has become inoperable. *See page 4-3.*
Mirror Locked	The transport mode is not turned off. *Turn off the transport mode.*
No Command	You pressed **REVIEW COMMANDS** to review upcoming commands, but your fax machine had none stored.
No Dept. Code	You tried to turn on the department code setting but there are no department codes stored in your fax machine. *Store at least one department code, then try again.*
No Document Stored	You tried to print a document from memory, but your fax machine had none stored.
No Drum	The drum cartridge is missing or has not been properly installed in your fax machine. *Please properly install the drum cartridge.*
No Number Stored	You selected an autodialler, batch box or F-Code box number for which there is no phone number programmed. *Either choose another number or dial a phone number directly from the numeric keypad.*
No Passcode	You tried to protect an operation or department code but there's no protection passcode stored in your fax machine. *Store a protection passcode in your machine, then retry protecting the operation or department code.*
No PIN Number	You selected "Mode1" in the PIN mask feature and tried to call an autodialler number in which no PIN has been entered. *Enter a PIN, then try again.*
No Report	You requested an activity journal or confirmation report, but your fax machine has no record of any fax jobs having occurred.
No Toner Cartridge	The toner cartridge is missing or has not been properly installed in your fax machine. *Please properly install the toner cartridge.*
Open 1st Side Cover **Please Remove Paper**	Your fax machine has detected a paper jam inside the first cassette's side cover. *Open the cassette's side cover and remove the jammed paper carefully.*
Open 2nd Side Cover **Please Remove Paper**	Your fax machine has detected a paper jam inside the second cassette's side cover. *Open the cassette's side cover and remove the jammed paper carefully.*
Open 3rd Side Cover **Please Remove Paper**	Your fax machine has detects paper jam inside the third cassette's side cover. *Open the cassette's side-cover and remove the jammed paper carefully.*
Open Top Cover **Please Remove Paper**	Your fax machine has detected a paper jam in its interior. *See page 3.3 for instructions on clearing the jam.*
Open & Close ScanCover **Reset Document**	Either your document wasn't inserted correctly, or the fax to which you're sending can't handle the document's page length. *Reset the page and try again.*
Please Call Service	The printer unit of your fax machine has become inoperable. *See page 4-20.*
Please Replace Drum	Your drum cartridge has reached the limit of its design life. *Please replace the drum cartridge.*
Please Replace Toner	Your toner cartridge is empty. *Replace the toner cartridge.*
Please Supply Paper	The paper cassette or multiple paper feeder tray is out of paper. *Add paper to the cassette and/or the tray.*

Please Wait	Your fax machine's printer is either warming up or busy. *Please wait until the fax is finished printing and then re-try your command or operation.*
Polling In Use	You tried to store the polling document in your fax machine, where one already had been stored. *Wait for the fax to complete the regular polling operation, then try again.*
Printer In Use	The command you're trying to enter requires the use of the printer, which is already in use. *Wait for the fax to finish printing, then try again.*
Protect Doc. Stored	A received document was in your fax's memory when you tried to turn off the security reception passcode. *Print the received document from your fax's memory, then retry the desired operation.*
Remove Tray Paper **Open & Close Top Cover**	Your fax machine has detected a paper jam in the multipurpose tray. *See page 3.4 for instructions on clearing the jam.*
Scanner In Use	The command you're trying to enter requires the use of the scanner, which is already in use. *Wait for the fax to complete the scan, then re-try the desired command.*
Stop Scanning **ContStor Enter/Cancl**	You opened the top cover while the machine was scanning the document (for either faxing or copying) using the FBS. *To continue the scan, press* **ENTER**. *To abort the scan, press* **CANCEL**.
Sub-address In Use	You tried to enter a sub-address identical to one already being used in another F-Code box. *Enter a different sub-address.*
Toner Low	Your fax machine is almost out of toner. *Contact your authorised OKI dealer to purchase a new toner cartridge if you don't already have one.*
Too Many Characters	You attempted to enter too many numbers or other characters in the current operation. *Press* **CANCEL** *to delete the extra characters, then try again. You may wish to review the operation's appropriate instructions.*
Too Many Locations	You tried to enter too many numbers for a broadcast. You can enter up to 10 one-touch or speed-dial numbers and numbers entered through the numeric keypad. *Press* **CANCEL** *to delete the extra numbers and then try again.*

4.14 Error Codes

If an error occurs during a communication, a check messages will be printed. The following provides an explanation of check messages.

- A possible solution to the problem
- The sending location (if the remote fax stores a Location ID of its own)
- The result – which is a special error code
- The sample document.

You will also see a code listed in the Result column of the report. Result codes indicate the specific problem encountered:

- "D" codes occur while dialling
- "R" codes occur during reception
- "T" codes occur during transmission

Here is a list of error codes the fax machine may print.

Dialling errors

Error code	Message *	Explanation
D.0.1	B	Congestion tone was detected. Try the call again.
D.0.2	C	The remote fax machine is busy. Call again.
D.0.3	H	The **STOP** button was pressed while the unit was dialing. Try the call again.
D.0.6	F	Autodialler number was not stored in the unit. Store the telephone number in the unit's autodialler number.
D.0.7	A	The dialling time out occurred because the remote unit did not answer. Try the call again.
D.0.8	B	Dial tone was not detected. Try the call again.

*: See "Communication Error messages" on next page.

Reception errors

Error code	Message *	Explanation
R.1.1	A	T1 time-out. The calling unit was not a fax machine or the transmitting unit is having difficulties.
R.1.2	A	Compatibility error. The calling unit is attempting to poll a document that does not exist, has secure transmission enabled or is attempting to transmit to a non existent secure mailbox.
R.1.4	H	The **STOP** button was pressed during reception.
R.1.5	A	The fax machine didn't detect the silence period for ending channel when receiving RCR.
R.2.1	A	A Compatibility error (closed network, junk fax detection) occurred.
R.2.3	A	No response to FTT. Poor phone line conditions made fax communication impossible. Enable the one second pause after CED on Memory Switch C:0. Also try increasing the echo wait time on Memory Switch C:1 if echo is on the line.
R.3.1	A	No response to CFR. DCN was received from the transmitter. Poor line conditions made communication impossible. Adjust the echo wait time on Memory Switch C:1. Try increasing the output levels via Machine Parameter A:1.
R.3.3	A	Too many errors were detected during data reception. The carrier was interrupted. Increase the data error rate on Memory Switch C:0.
R.3.4	A	DCN was received after FTT. Communication was not possible at 2400 bps. Poor phone line conditions prevented fax communication. Enable the Eye Quality Check on Memory Switch D:1 and D:2.
R.3.5	A	Poor line conditions prevented reception.

*: See "Communication Error messages" on next page.

R.4.2	A	MPS/EOM/EOP was not received. Either the line disconnected before reception was completed or too many errors were detected by the receiving unit. Adjust the data error rate on Memory Switch C:0. It may also be necessary to decrease the receive communication speed via Memory Switch C:0.
R.4.4	E	The receiving fax machine has reached its memory capacity.
R.5.1	A	DCN was received instead of RR during ECM communication.
R.5.2	A	Line noise or other problems prevented ECM reception.

*: See “Communication Error messages” on next page.

Transmission errors

Error code	Message *	Explanation
T.1.1	A	T1 time-out. The remote fax machine didn’t respond to your machine. This usually occurs during a manual transmission or when an incorrect number was dialled. Call someone at the remote machine.
T.1.4	G	The **STOP** button was pressed during transmission.
T.2.1	A	CFR or FTT was not received from the remote machine. Either the phone line disconnected during fax communication or transmission became impossible due to bad phone line conditions. Try the call again. It may be necessary to increase the output levels on Machine Parameter A:1. The receive machine may also have closed network or block junk fax enabled.
T.2.2	A	The two fax machines were incompatible. No mailbox at receiver or security transmission is enabled.
T.2.3	A	FTT was received from the remote machine at 2400 bps. Bad phone line conditions made fax communication impossible. Conditions can change rapidly, so try the call later. Turn on the echo protect tone on Memory Switch B:0. Also adjust the interval between DCS and TCF on Memory Switch B:1. If the problem persists, try increasing the output levels on Machine Parameter A:1.
T.3.2	A	The fax machine didn’t detect the silence period for ending channel.
T.4.1		No response to MPS/EOP/EOM. Poor phone lines caused the receiving unit to disconnect. Adjust the interval between CFR and data on Memory Switch B:1. Try increasing the output levels on Machine Parameter A:1. It may also be necessary to adjust the transmit speed on Memory Switch B:0.
T.4.2	D	RTN was received from the remote machine. After transmission began, poor line conditions developed. Try the call again. Attempt the solutions described for the T.4.1 error.
T.4.4	B	Poor line conditions prevented transmission. PIP was received. The transmission was interrupted by the call mode. The receiving unit may be experiencing problems. Try the call again.
T.5.1	A	No response to RR from the remote machine. Line noise or other problems prevented ECM transmission. Increase the ECM response time on Memory Switch B:2.
T.5.2	A	No response to CTC. Line noise or other problems prevented ECM transmission. Increase the ECM response time on Memory Switch B:2.
T.5.3	B	EOR was received from the remote unit but further transmission was not possible. Adjust Memory Switch B:5 for this problem.

*: See “Communication Error messages”.

Communication Error Messages

The error messages on Check Message printouts can mean a variety of things. Here's a brief summary:

	Error Message	Possible Meanings
A	Check condition of remote fax	• Remote machine malfunctioned • No "handshake" signals from remote machine • Wrong phone number reached
B	Repeat transmission	• Poor phone line conditions prevented communication • No "handshake" signals from remote machine • Document miss feed or miscount • Unable to reach remote machine after attempting specified number of redial tries
C	Line is busy	• Remote machine's line was busy • Remote machine's line didn't answer
D	Check received documents	• Receive confirmation signal not received from remote machine • Poor line conditions caused a poor image
E	Memory full	• Remote machine's memory capacity exceed.
F	Dialling number is not set	• Stored phone number failed to dial properly.
G	Stopped	• Someone pressed **STOP** as one at the remote fax in the middle of the "handshake"
H	(the message area is blank)	• Someone pressed **STOP** during communication • Printer error occurred during communication

4.15 Service Call Error

When certain machine problems occur these message will appear in the LCD.

4.15.1 Call For Service

Symptom: “Call For Service” is in the LCD.

Suggested corrective action:

1. Verify the lamp turns on when the book cover open and close.
2. If the lamp turns on, check the back ground seal surface dirt. If dirty, clean the back ground seal. The back ground seal is attached on the inner guide B.
3. Verify the mirror carriage moves normally. (See “Mirror carriage error”, page 4-3)
4. If during step 1 the lamp did not turn on, check the following connection:
   - Lamp assembly to the Inverter PCB (CN2)
   - Inverter PCB (CN1) to the Harness to the main control PCB (P13)
5. Replace the lamp and/or the Inverter PCB.

4.15.2 Please Call Service

When certain machine problems occur a “Please Call Service” message will appear in the LCD. When this message appears, access the printer maintenance mode / Service call function to determine the cause of the “Please Call Service” error message.

To access the printer maintenance modes:

1. Press **PROGRAM**, *****, **6**.
   The mode are contained within two main menu level.

```
Set Replace Counter
        Program/Enter
```

```
Service Call
        Program/Enter
```

2. Press **PROGRAM** to select “Service Call” mode and then press **ENTER**.
3. The error message will be displayed.
   For example, when “Heater error” and “Drum Fuse Error” has occurred, the LCD will show:

```
Service Call  :  2
Heater Error
```

Number of errors

   Press **PROGRAM** to show the other printer error message.

The errors messages and an explanation of each are outlined below.

Heater Error

Symptom: fuser heater malfunction.

Suggested corrective action:

1. Check the connectors from the power supply to the main control PCB and to the fuser unit.
2. Check the heater lamp. If it comes on, see step 3; if it does not, see step 5.
3. Check continuity of fuser unit. If OK, see step 4; if bad, replace the fuser unit.
4. Replace the power supply unit.
5. Replace the fuser unit. If the problem is not correct, see step 6.
6. Replace the main control PCB.

Heater Disconnect

Symptom: broken or blown the heater lamp or thermistor in fuser unit.

Suggested corrective action:

1. Check the connectors from the power supply to the main control PCB and to the fuser unit.
2. Check the heater lamp. If it comes on, see step 3; if it does not, see step 5.
3. Check continuity of fuser unit. If OK, see step 4; if bad, replace the fuser unit.
4. Replace the power supply unit.
5. Replace the fuser unit. If the problem is not correct, see step 6.
6. Replace the main control PCB.

Heater Short

Symptom: broken or blown the heater lamp or thermistor in fuser unit.

Suggested corrective action:

1. Check the connectors from the power supply to the main control PCB and to the fuser unit.
2. Check the heater lamp. If it comes on, see step 3; if it does not, see step 5.
3. Check continuity of fuser unit. If OK, see step 4; if bad, replace the fuser unit.
4. Replace the power supply unit.
5. Replace the fuser unit. If the problem is not correct, see step 6.
6. Replace the main control PCB.

Inside Fan Error

Symptom: inside fan malfunction.

Suggested corrective action:

1. Verify the inside fan rotates when the power is on.
2. Check the connection between the main control PCB (P50) and the fan.
3. Replace the fan motor if it doesn't rotate.
4. If the problem is not correct, replace the main control board.

Printer PS Fan Error

Symptom: PS Fan malfunction.

Suggested corrective action:

1. Verify the PS fan rotates when the power is on.
2. Check the connection from the fan to the connection board and to the main control PCB (P24). (See page 2-1.)
3. Replace the fan motor if it doesn't rotate.
4. If the problem is not correct, replace the main control board.

RX Motor Error

Symptom: RX motor malfunction

Suggested corrective action:

1. Verify the RX motor rotates when the power is on.
2. Check the connection between RX motor and the main control PCB (P56). (See page 2-2.)
3. Replace the RX motor if it doesn't rotate.
4. If the problem is not correct, replace the main control board.

Drum Fuse Error

Symptom: The fuse in the new drum cartridge does not disconnect when set the new drum cartridge.

Suggested corrective action:

1. Verify the drum cartridge is set correctly.
2. Check a point of contact between drum cartridge and machine's electrode.
3. Replace the drum cartridge.
4. Replace the main control PCB.

H-vlt Fuse Disconnect

Symptom: The fuse in the high voltage power supply is disconnect.

Suggested corrective action:

1. Replace the high voltage power supply and the drum cartridge.

4.16 LCD Failure

Symptom: No display in the LCD.

Suggested corrective action:

1. Verify that the power cord is correctly connected and the power switch is ON.
2. Check for a blown fuse or open circuit on the unit's internal power supply.
3. Check the DC output voltages from the power supply unit to connector P1 on the main control PCB.
   If any of the following voltages are incorrect, replace the power supply.
   - Pin 1, 2 : +24 VDC
   - Pin 3, 4, 5 : GND
   - Pin 6 : H.C.
   - Pin 7 : +12 VDC
   - Pin 8 : GND
   - Pin 9 : -12 VDC
   - Pin 10,11,12 : +5 VDC
   - Pin 13 : GND
4. Check the following connectors:
   - LCD assembly to the Panel 1 PCB (P102)
   - Panel 1 PCB (P100A) to the Harness to the main control PCB (P10A)
   - Panel 1 PCB (P100B) to the Harness to the main control PCB (P10B)
5. Replace the associated PCBs and connector harness.

4.17 General Power Failure

Symptom: Unit will not power up.

Suggested corrective action:

1. Verify that the power cord is correctly connected and the power switch is ON.
2. Verify that the electrical outlet is on.
3. Check for a blown fuse or open circuit on the unit's internal power supply.
3. Check the DC output voltages from the power supply unit to connector P1 on the main control PCB.
   If any of the following voltages are incorrect, replace the power supply.
   - Pin 1, 2 : +24 VDC
   - Pin 3, 4, 5 : GND
   - Pin 6 : H.C.
   - Pin 7 : +12 VDC
   - Pin 8 : GND
   - Pin 9 : -12 VDC
   - Pin 10,11,12 : +5 VDC
   - Pin 13 : GND

4.18 Cleaning the Unit

Use a mild cleaning solution on a lint-free cloth to wipe the machine's cover, handset and paper cassette tray. Never spray cleaner directly onto the fax machine as the spray could damage components inside the fax.

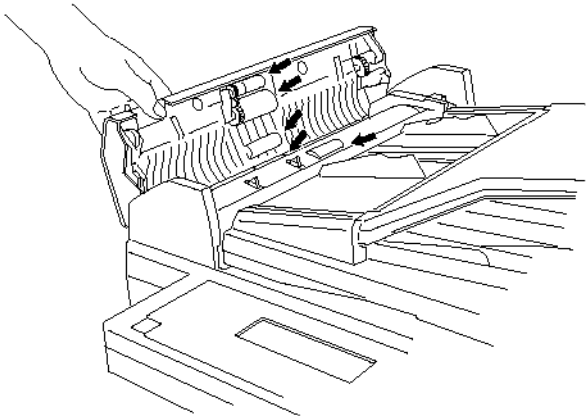
Cleaning the Document Feeder Area

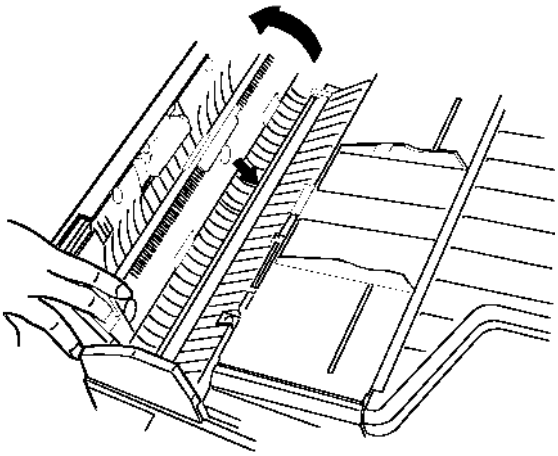
If the unit is not feeding documents properly, perform this procedure:

1. Turn off your fax machine.
2. Get a soft, lint-free cloth.
3. Moisten the cloths as follows:

   One of the two cloths with isopropyl alcohol

   The other cloth with a cleaner suitable for use on platen/rubber rollers.
4. Open the scanner cover by holding the scanner cover release.
5. Use the moistened cloth (see step 2 and step3) to clean the face of rollers. Rotate the rollers by hand to allow cleaning of the entire roller surface.



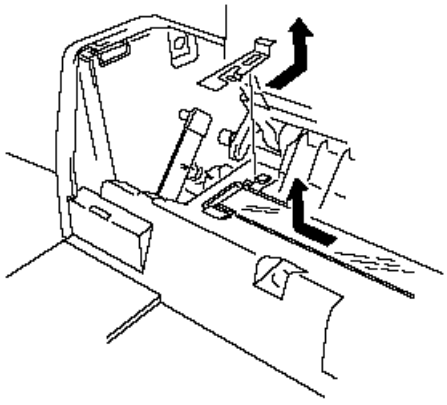


Cleaning the Inside of Contact Glass

If you find your fax recipients complaining that the faxes you send are streaked, the inside of contact glass surface may be dirty.

1. Turn off your fax machine.
2. Get a soft, lint-free cloth.
3. Open the scanner cover by holding the scanner cover release.
4. Remove the contact glass as shown.
5. Use the cloth with isopropyl alcohol to clean the contact glass.

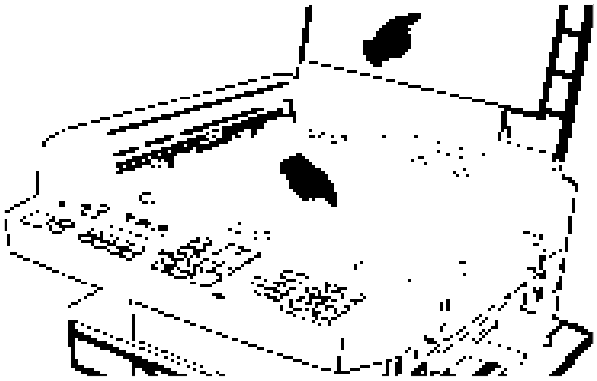
Note: Do not touch the contact glass directly by hand. Please put on your gloves.
Do not use abrasive materials on the contact glass.



Cleaning the FBS

If you find your fax recipients complaining that the faxes you send are streaked, the inside of contact glass surface may be dirty.

1. Open the book cover.
2. Get soft, lint-free cloth with isopropyl alcohol.
3. Cleaning the FBS using the cloth with isopropyl alcohol.

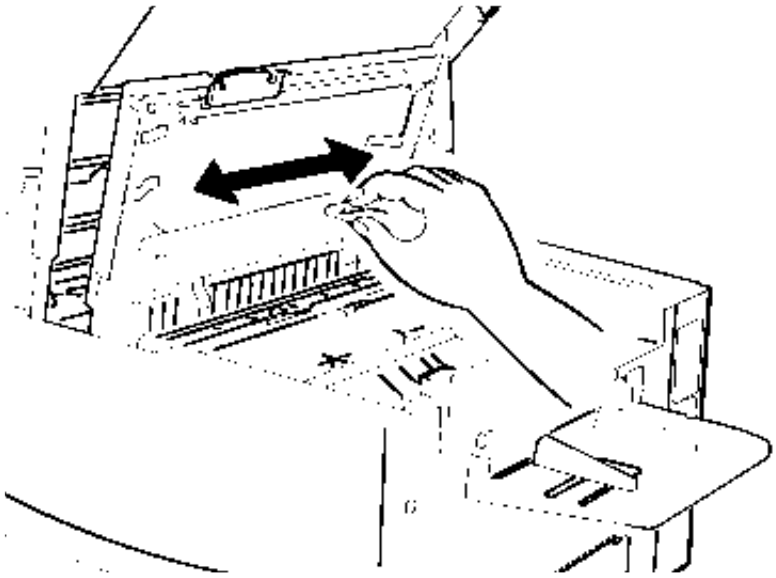


Cleaning the LED print head.

If you find your fax recipients complaining that the faxes you receive or copy image quality are streaked, the LED print head may be dirty.

1. Turn off your fax machine.
2. Get soft, lint-free cloth with isopropyl alcohol.
3. Open the top cover and then open the printer cover.
4. Gently cleaning the LED print head.

Note: Do not use abrasive materials on the LED print head.



Section5
Disassemble

Before disassembling, disconnect the power cord and line cord.

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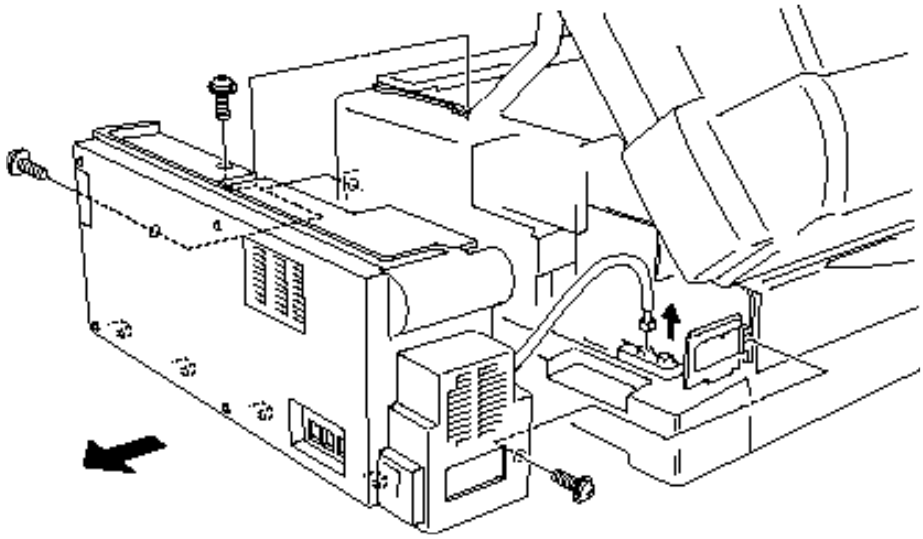
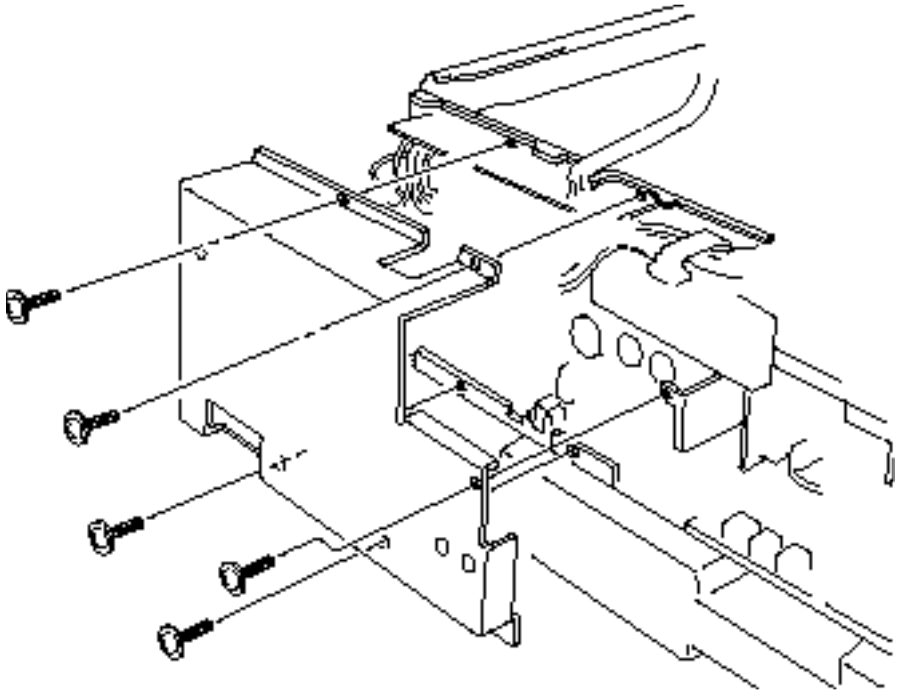
5.1 Rear cover

1. Open the top cover.
2. Remove the three rear cover mounting screws and disconnect the fan motor connector.
3. Release the four locking tabs, and then remove the rear cover.



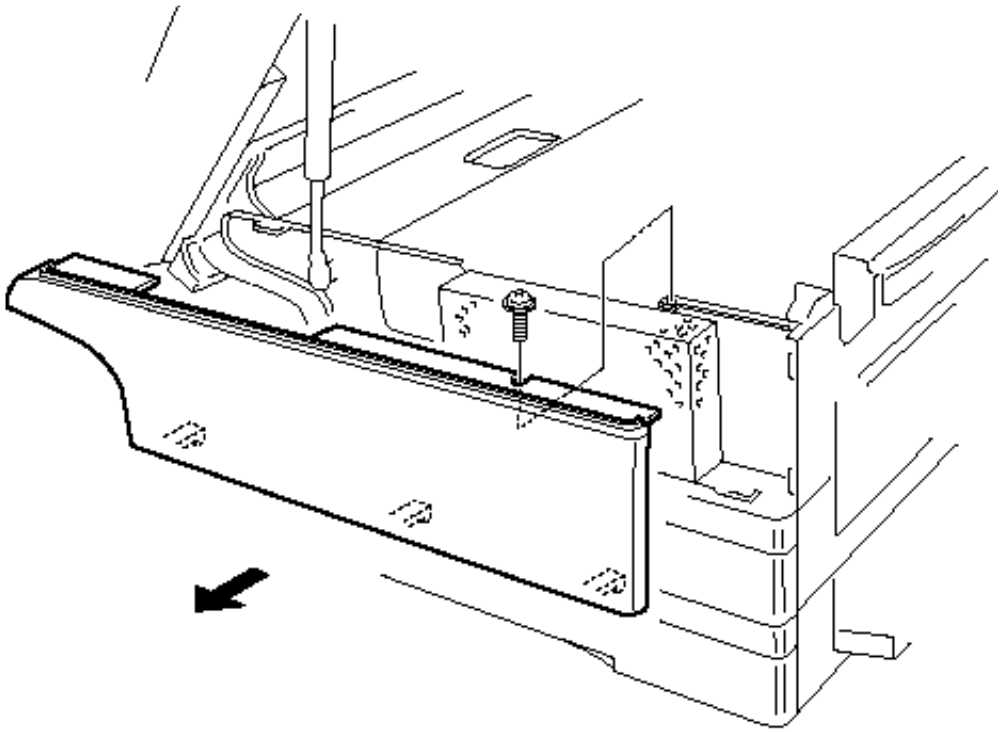
5.2 Shielding plate R

1. Remove the rear cover.
2. Remove the five shielding plate R mounting screws, and then remove the shielding plate R.



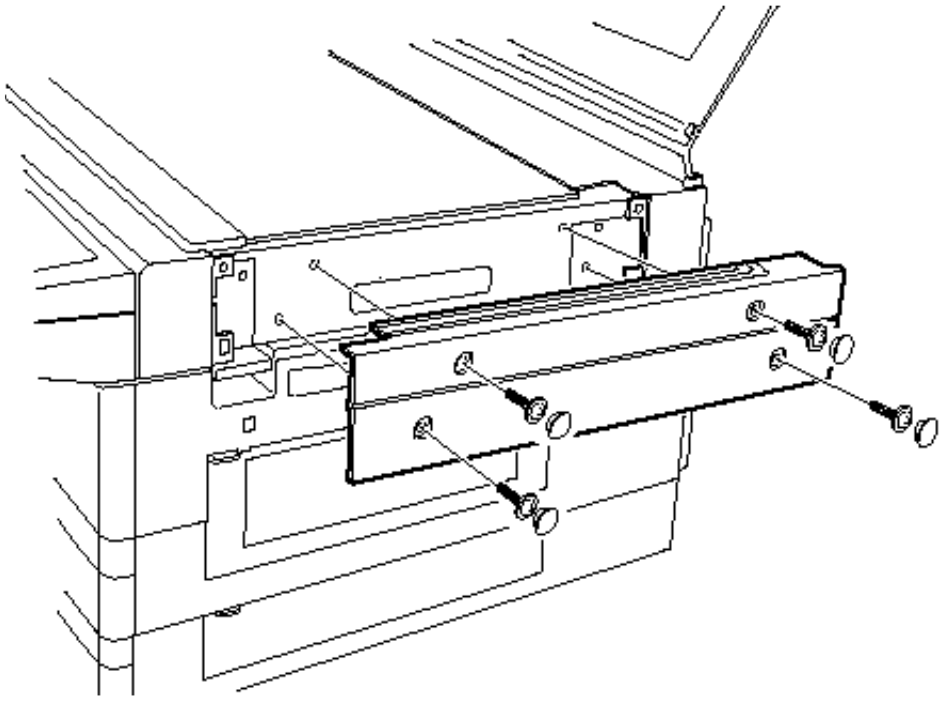
5.3 Front cover

1. Open the top cover.
2. Remove the front cover mounting screw.
3. Release the three locking tabs, and remove the front cover.



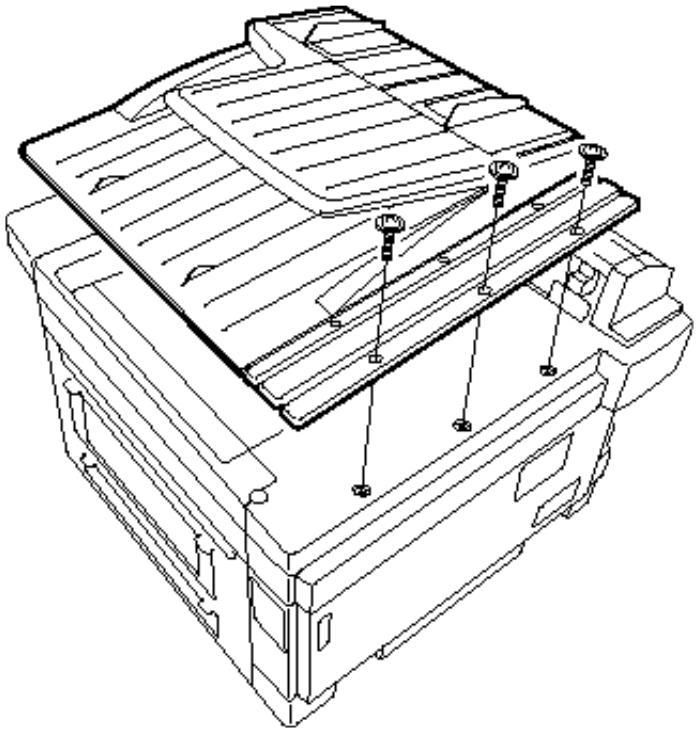
5.4 Upper right cover

1. Remove the four screw covers.
2. Remove the four upper right cover mounting screws, and then remove the upper right cover.



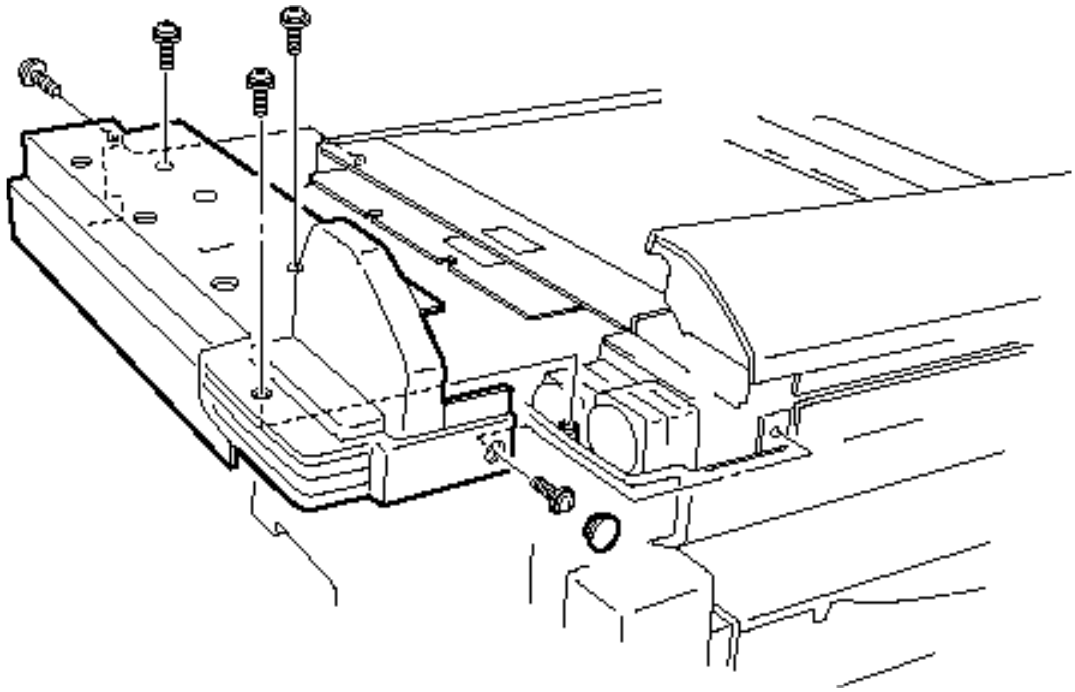
5.5 Book cover

1. Remove the three book cover mounting screws.
2. Remove the book cover.



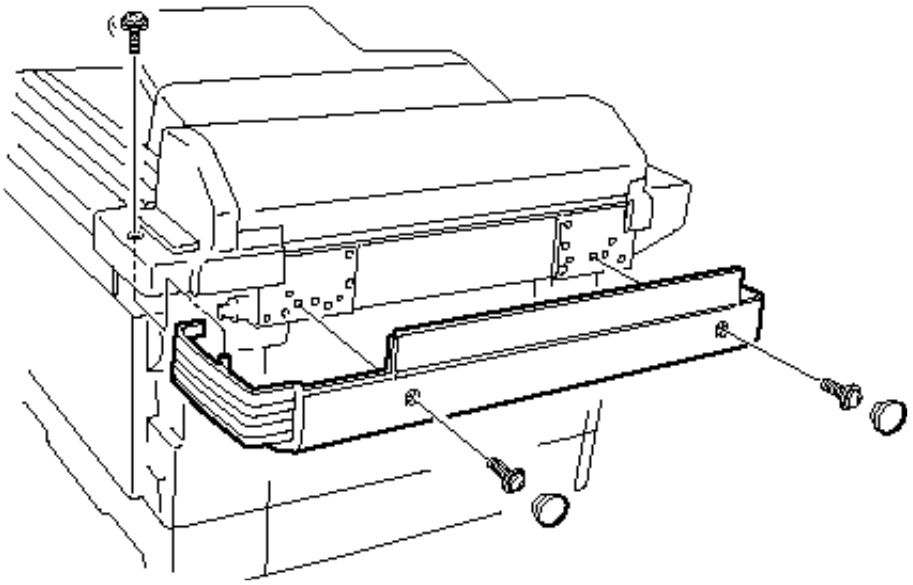
5.6 Upper rear cover

1. Remove the book cover.
2. Remove the upper right cover.
3. Remove the screw cover.
4. Remove the five upper rear cover mounting screws, and then remove the upper rear cover.



5.7 Upper left cover

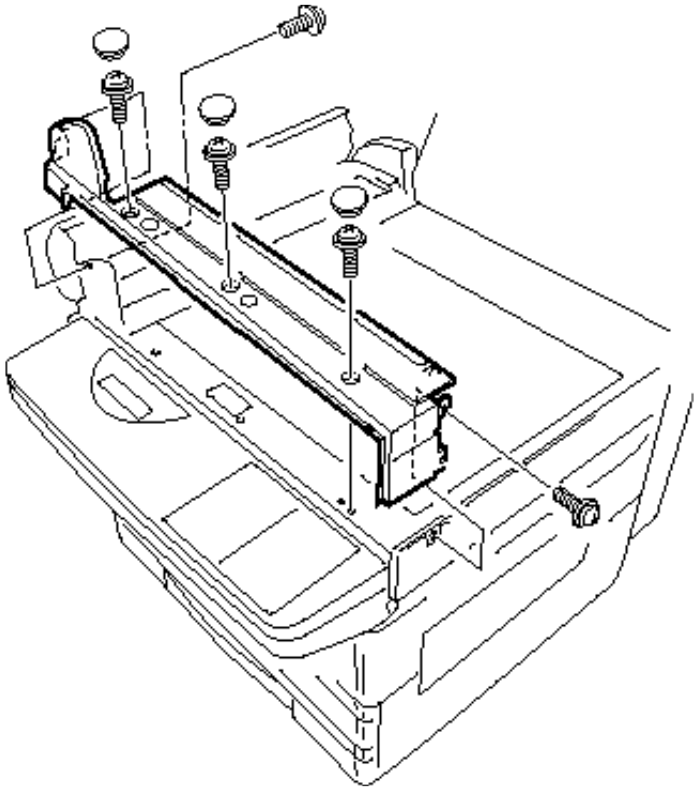
1. Remove the two screw covers.
2. Remove the three upper left cover mounting screws, and then remove the upper left cover.



5.8 Upper front cover

1. Remove the upper right cover.
2. Open the book cover.
3. Remove the three screw covers.
4. Remove the five upper front cover mounting screws, and then remove the upper front cover.

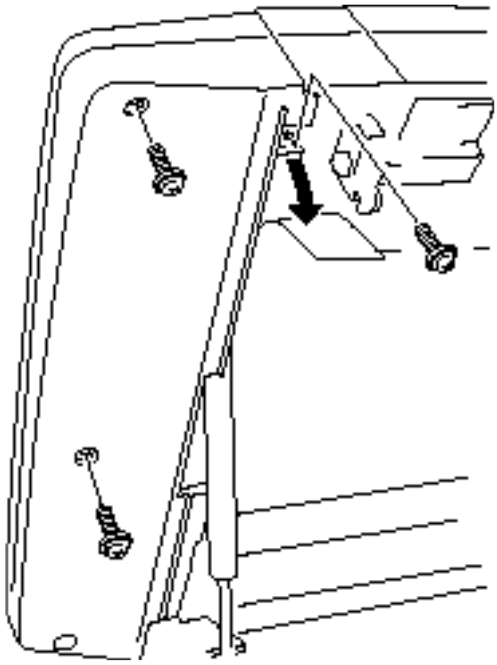
Note: If it is hard to remove the cover in the above procedures, loosen the most right screw of which attach the control panel assembly (see page 5-7).

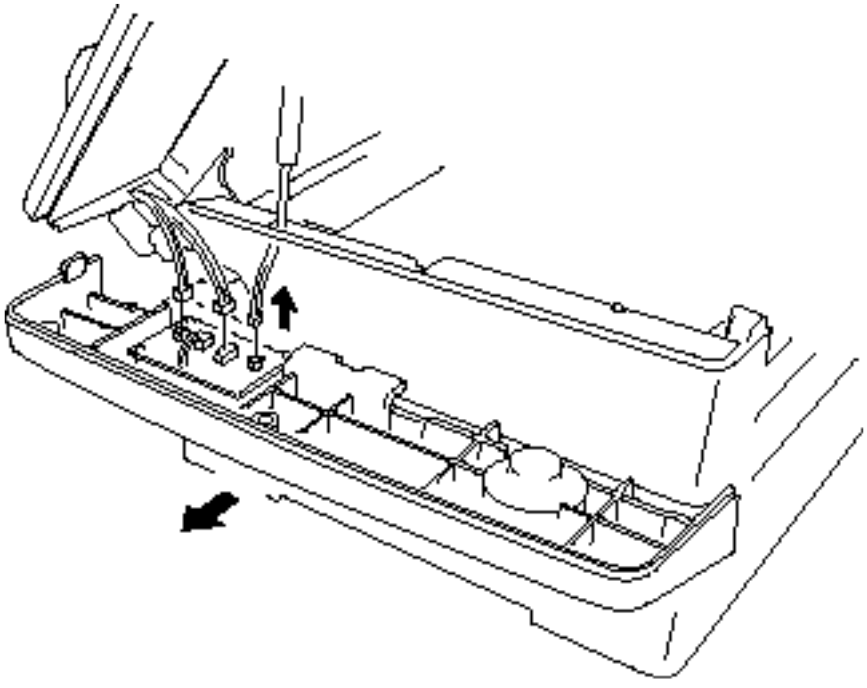


Note: When attaching the upper front cover to the unit, re-screw the upper front cover mounting screws from left side.

5.9 Panel lower cover

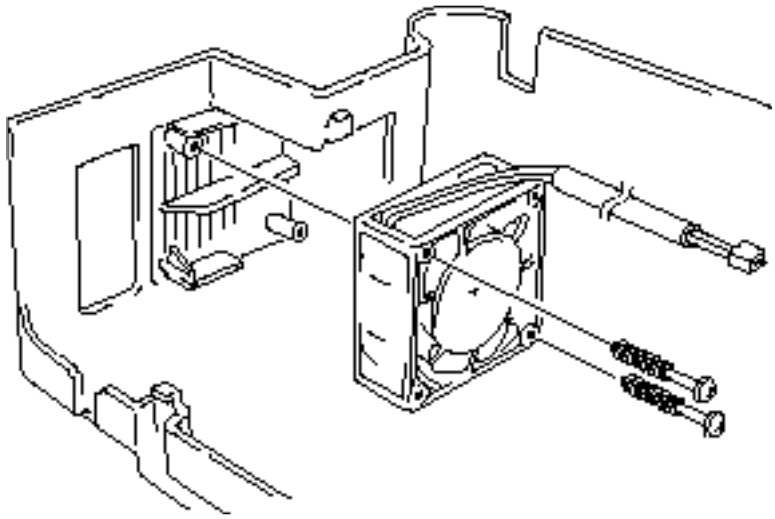
1. Open the top cover.
2. Remove the protection sheet until the screw appears.
3. Remove the three panel lower cover mounting screws.
4. Disconnect the three connectors (other than the speaker connector) on the connect B PCB.
5. Remove the panel lower cover.



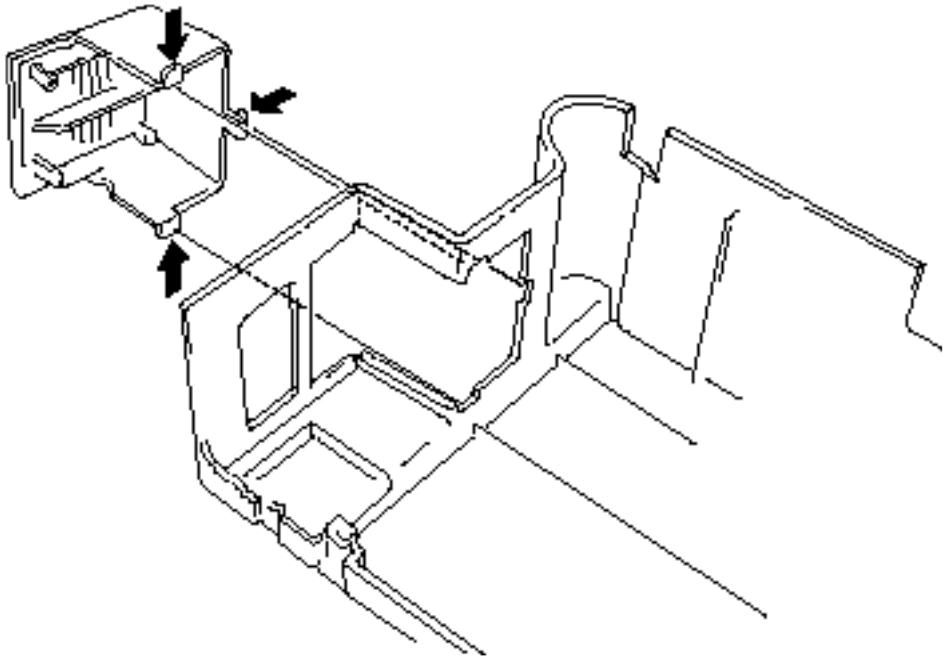


5.10 PS fan motor and PS fan motor cover

1. Remove the rear cover.
2. Remove the two PS fan motor mounting screws, and then remove the PS fan motor.

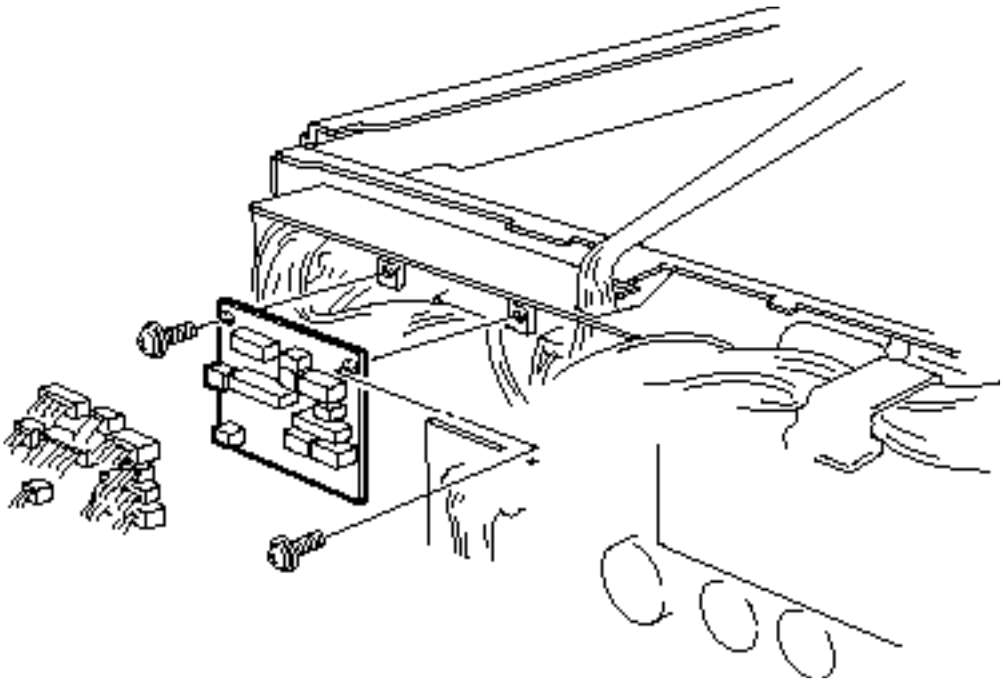


3. Release the three locking tabs, and then remove the PS fan motor cover.



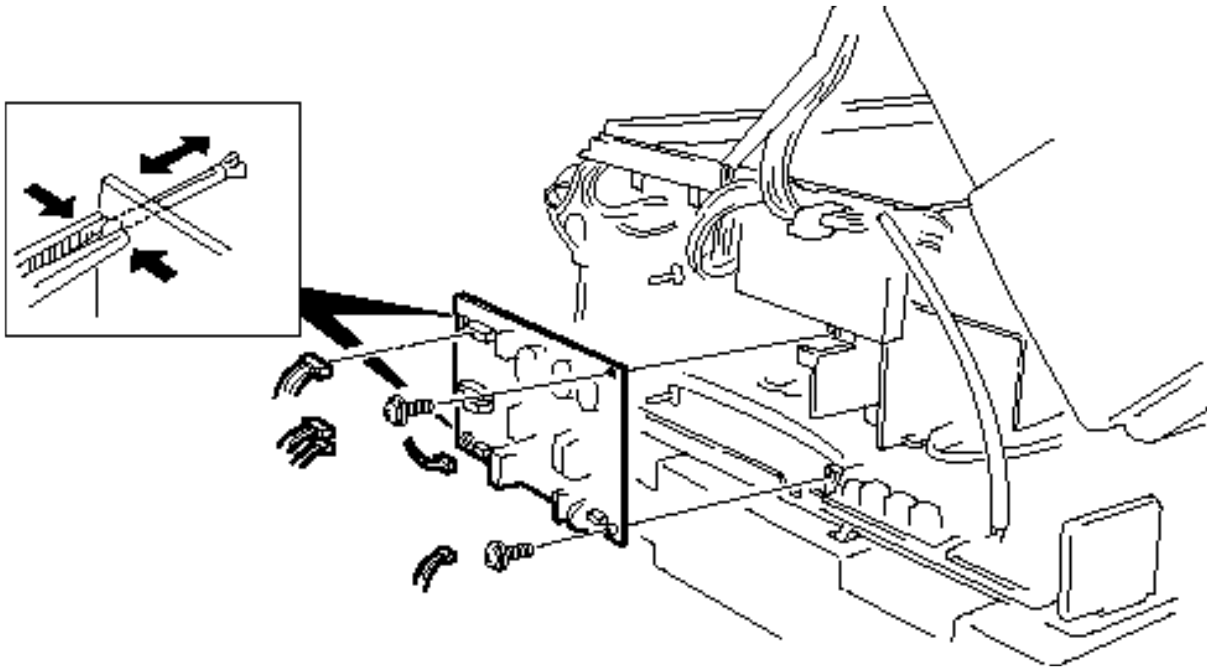
5.11 Connect A PCB

1. Remove the rear cover.
2. Remove the shielding plate R.
3. Disconnect the connectors on the connect A PCB.
4. Remove the two connect A PCB mounting screws, and then remove the connect A PCB.



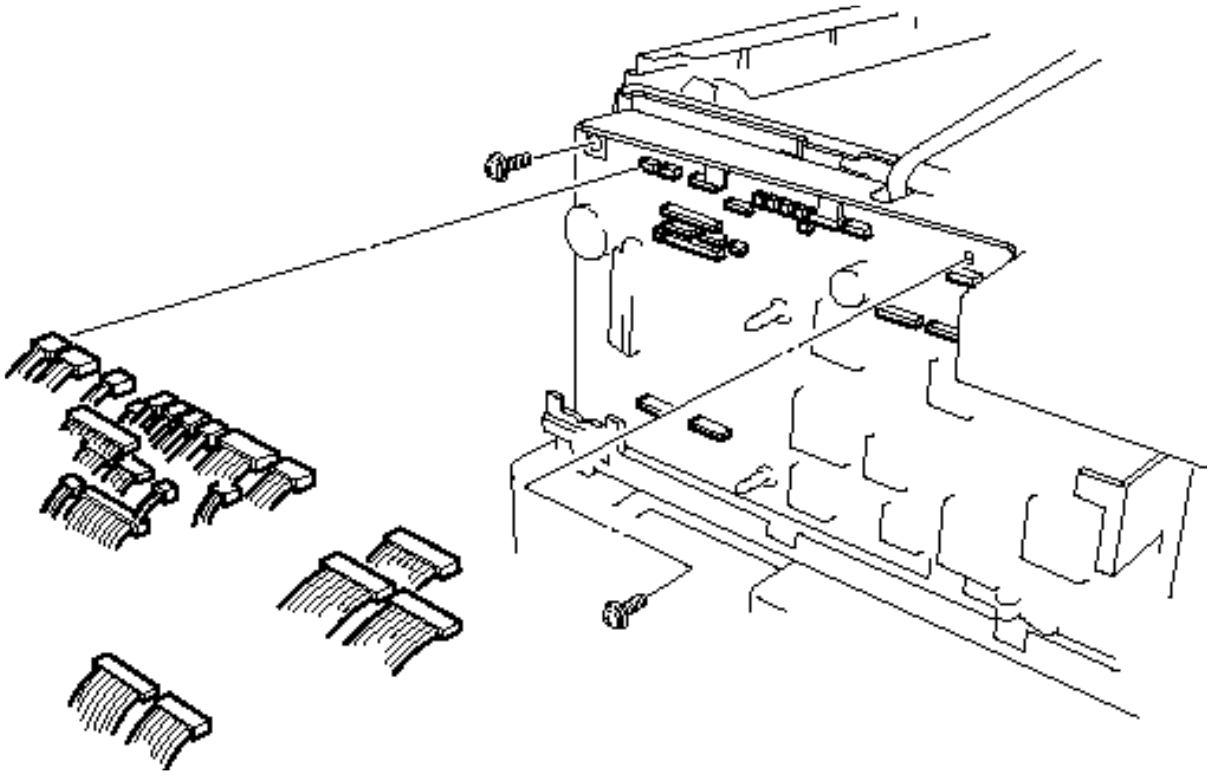
5.12 NCU PCB

1. Remove the rear cover.
2. Remove the shielding plate R.
3. Disconnect the connectors on the NCU PCB.
4. Remove the two NCU PCB mounting screws and release the two tabs.
5. Remove the NCU PCB.

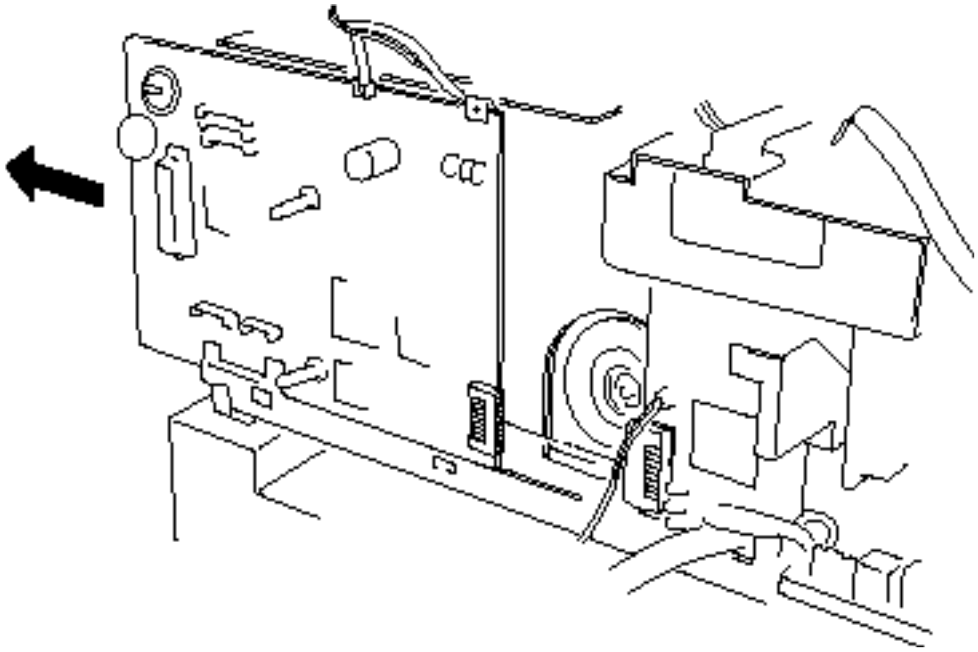


5.13 Main control PCB

1. Remove the rear cover.
2. Remove the shielding plate R.
3. Remove the connect A PCB.
4. Remove the NCU PCB.
5. Disconnect the connectors on the main control PCB.
6. Remove the two main control PCB mounting screws.

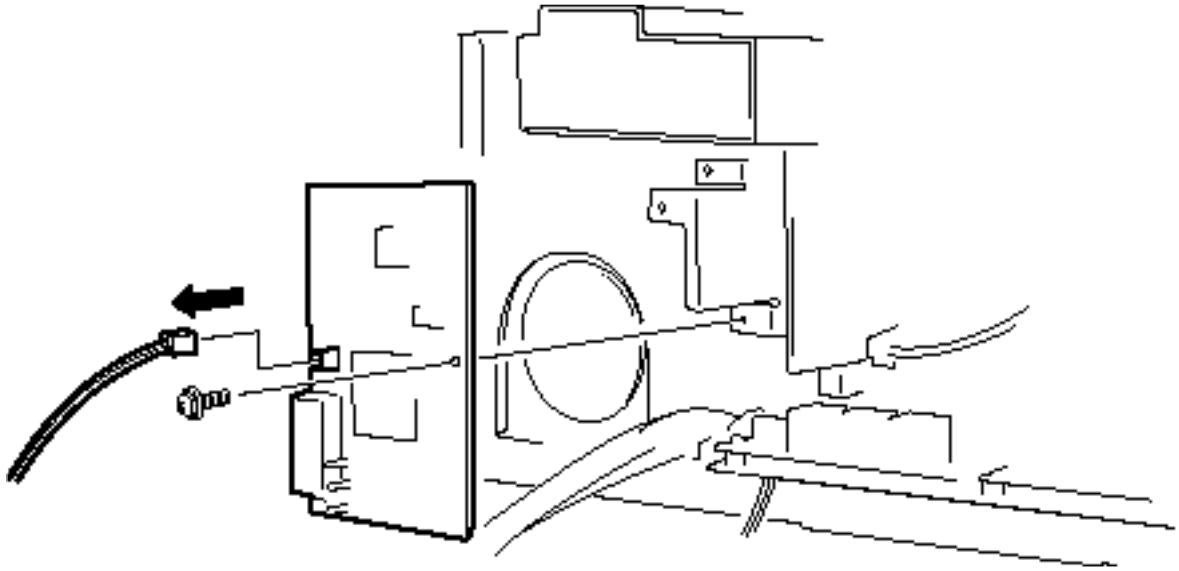


7. Slide the main control PCB toward left, and then remove the main control PCB.



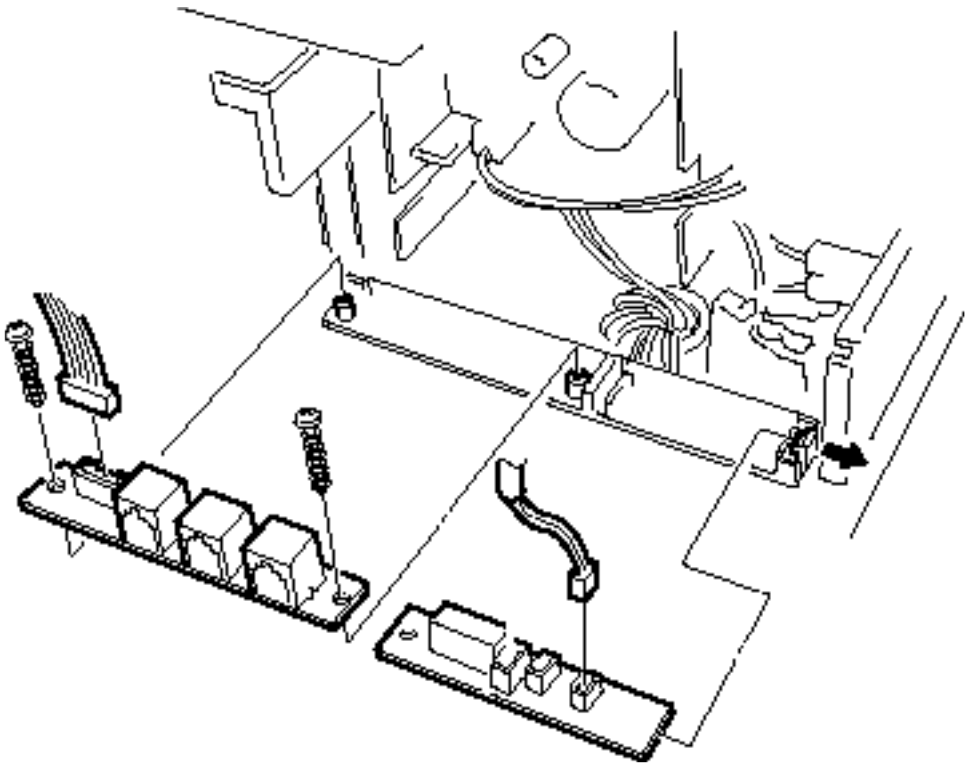
5.14 Modem PCB

1. Remove the rear cover.
2. Remove the shielding plate R.
3. Remove the connect A PCB.
4. Remove the NCU PCB.
5. Remove the two main control PCB mounting screws and disconnect the connector between the main control PCB and the modem PCB by sliding the main control PCB toward left.
6. Disconnect the connector on the modem PCB.
7. Remove the modem PCB mounting screw, and then remove the modem PCB.



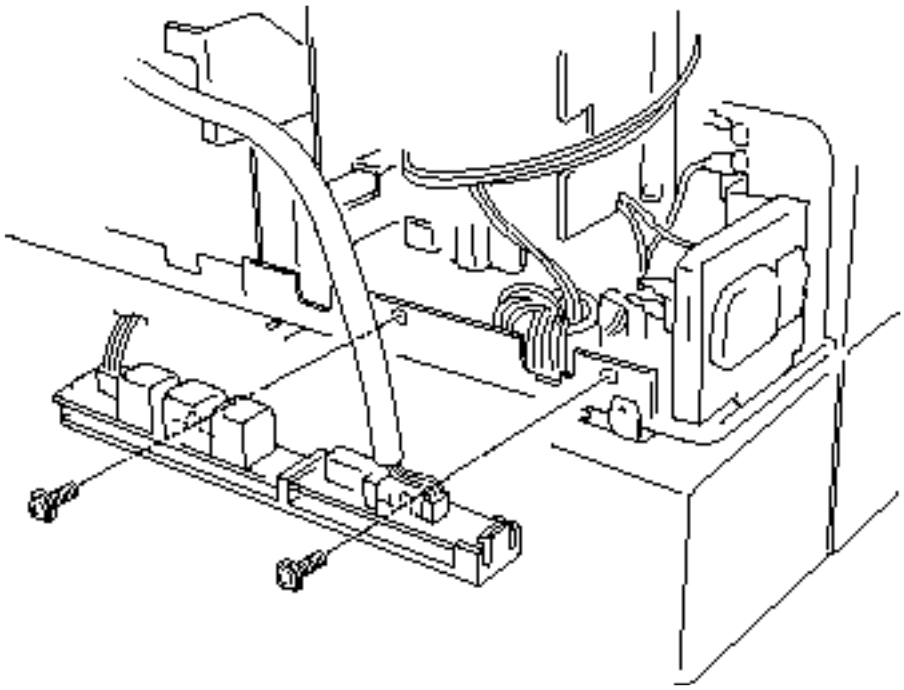
5.15 Modular PCB / Connect C PCB

1. Remove the rear cover.
2. Disconnect the connector and remove the two modular PCB mounting screws.
3. Remove the modular PCB.
4. Disconnect the connector and remove the connect C PCB.

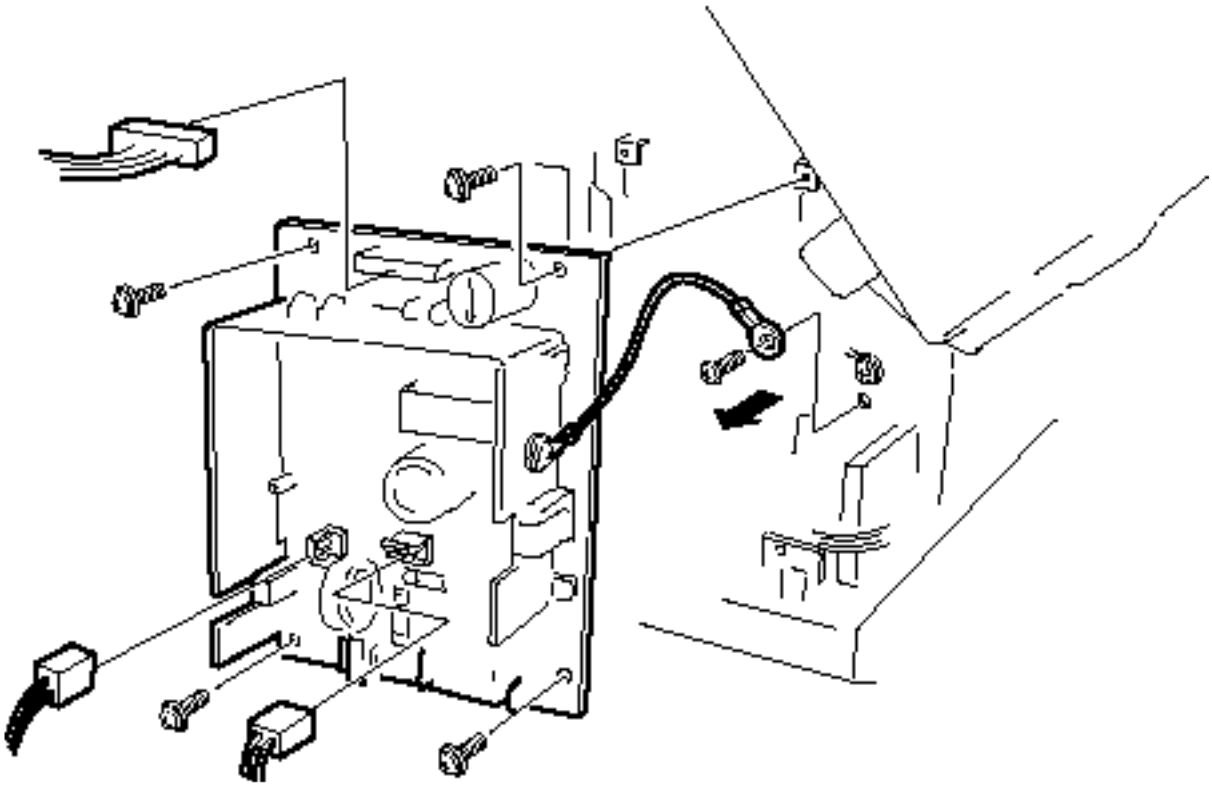


5.16 Power supply unit

1. Remove the rear cover.
2. Remove the two modular bracket mounting screws, and then remove the modular bracket.

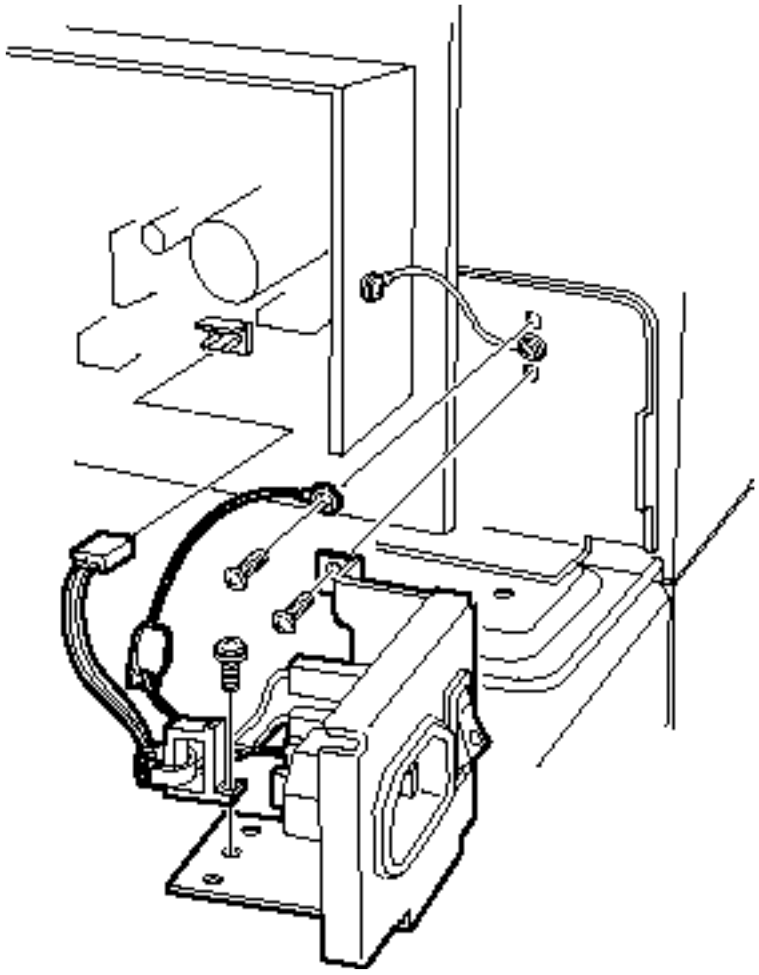


3. Disconnect the three connectors on the power supply unit.
4. Remove the ground wire mounting screw.
5. Remove the four power supply unit mounting screws, and then remove the power supply unit.



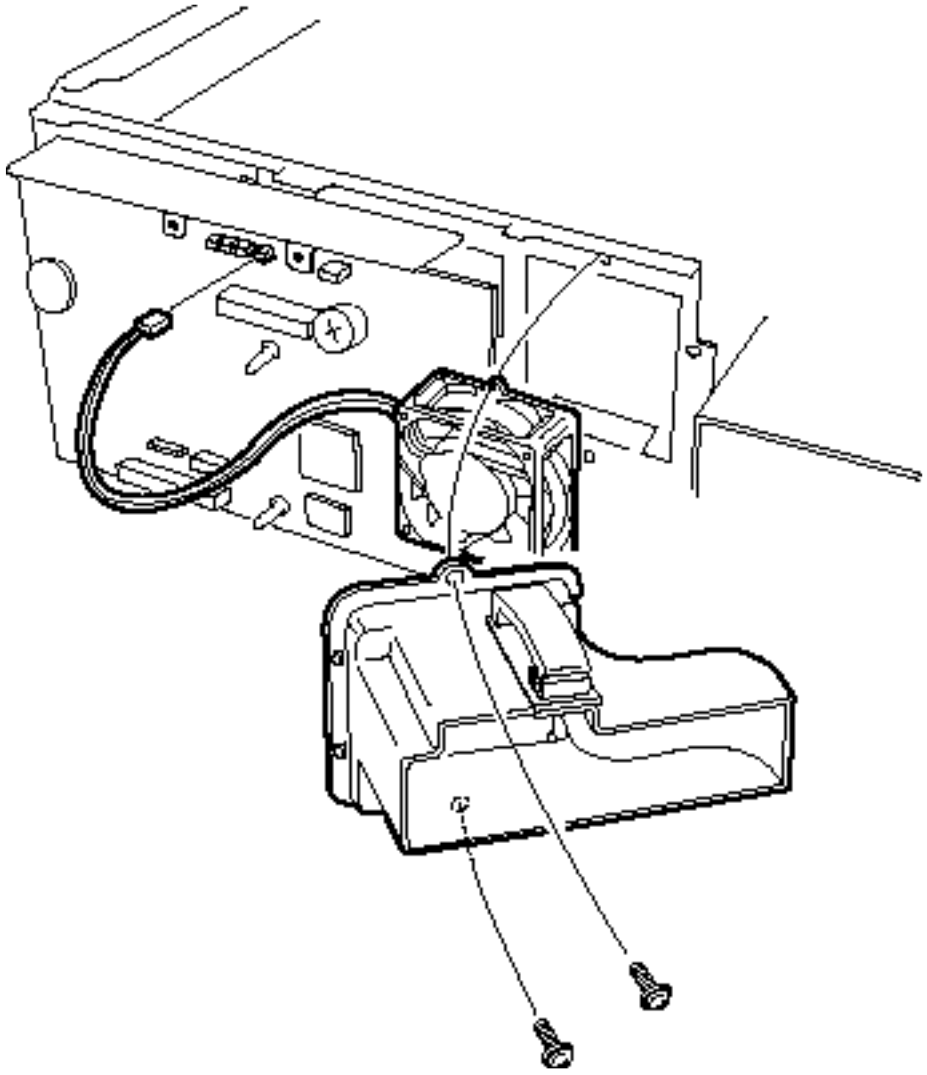
5.17 Power switch assembly

1. Remove the rear cover.
2. Remove the ground wire mounting screw.
3. Disconnect the connector (CN1) on the power supply unit.
4. Remove the two power switch bracket mounting screws, and then remove the power switch assembly.



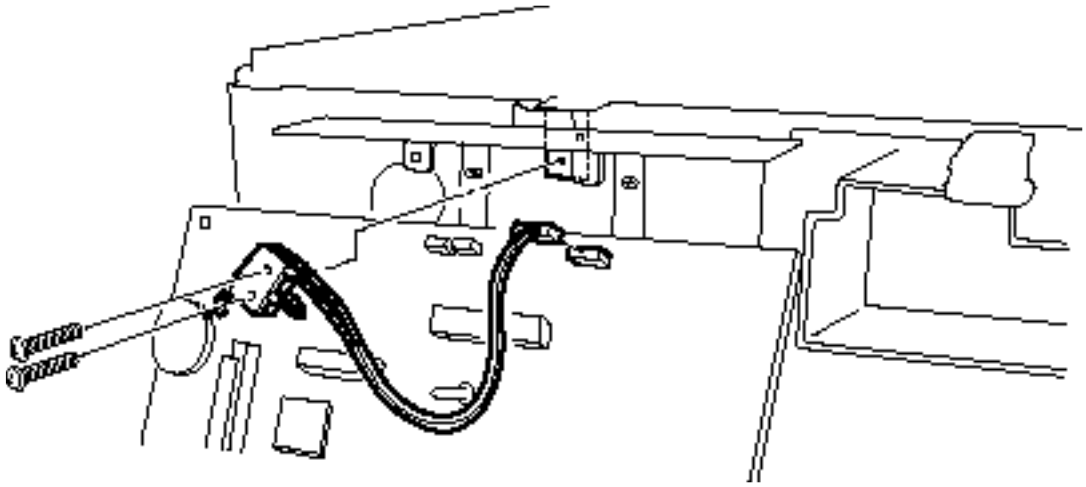
5.18 Duct and Inside fan motor

1. Remove the rear cover.
2. Remove the shielding plate R.
3. Remove the connect A PCB.
4. Remove the NCU PCB.
5. Remove the modem PCB.
6. Disconnect the connector (P50) on the main control PCB.
7. Remove the two duct and inside fan motor mounting screws.
8. Remove the duct and inside fan motor.



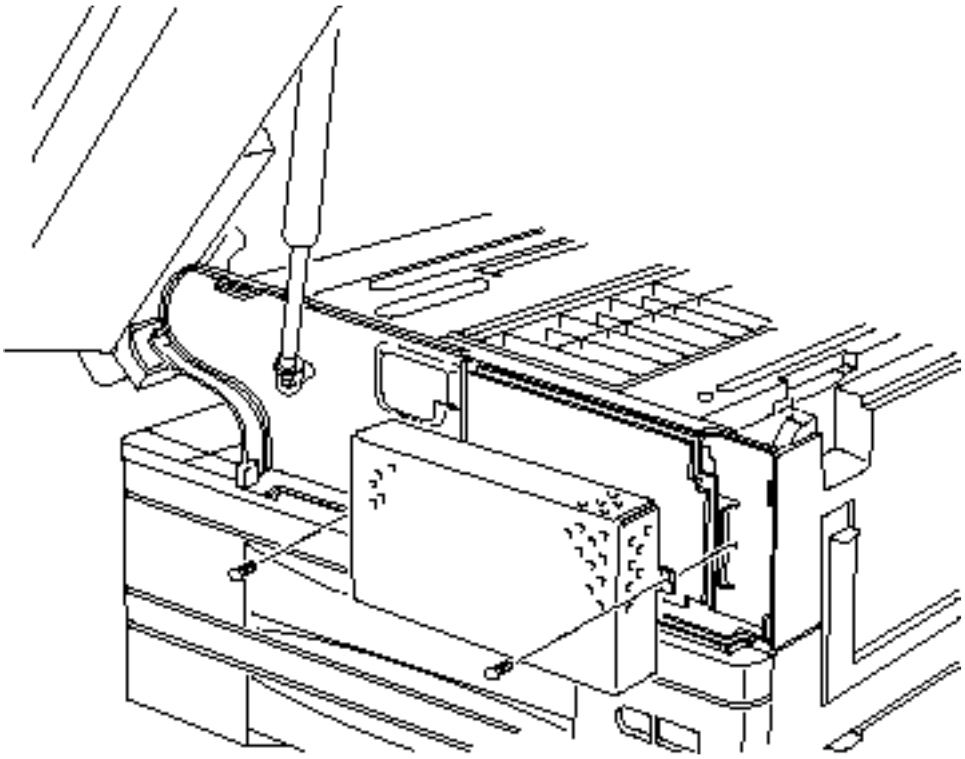
5.19 Cover switch

1. Remove the panel lower cover.
2. Remove the shielding plate R.
3. Remove the connect A PCB.
4. Remove the NCU PCB.
5. Remove the main control PCB.
6. Remove the two cover switch mounting screws, and then remove the cover switch.

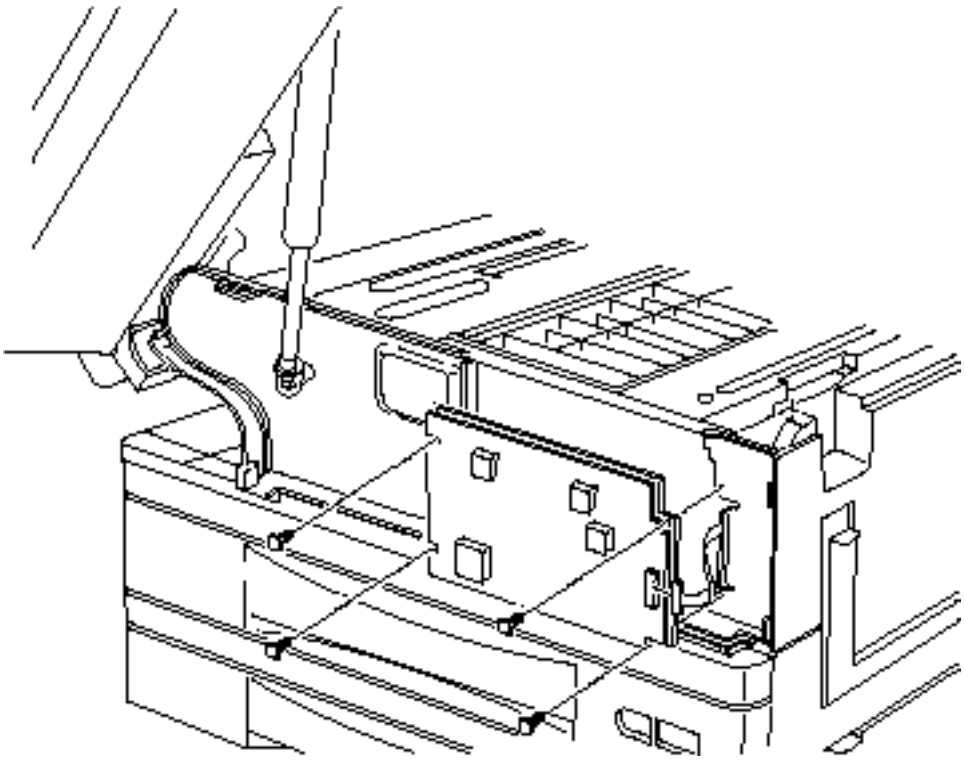


5.20 High voltage unit

1. Remove the front cover.
2. Remove the two shielding plate F mounting screws, and then remove the shielding plate F.



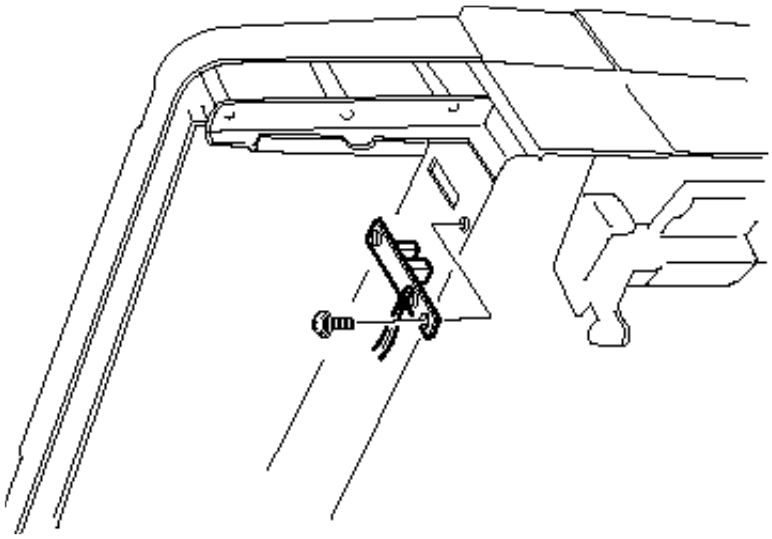
3. Disconnect the connector and remove the four high voltage unit mounting screws.
4. Remove the high voltage unit.



Note: When attaching the high voltage unit to the unit, be sure to contact vertically the high voltage point and the point of contact on the back side of the high voltage unit.

5.21 Home sensor

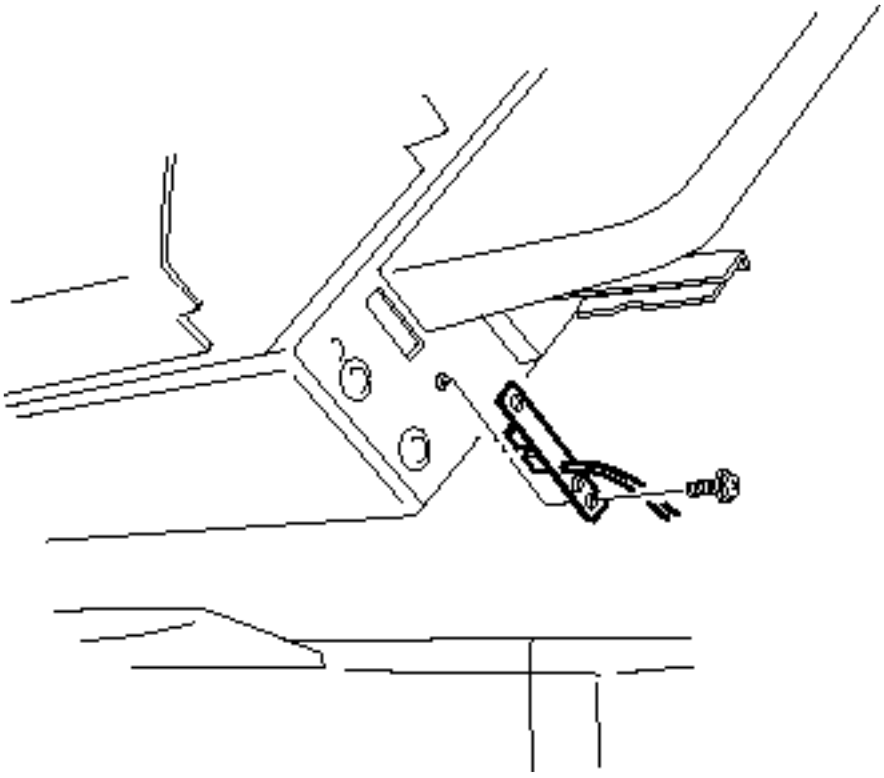
1. Remove the panel lower cover.
2. Disconnect the home sensor connector (P11) on the connect B PCB.
3. Remove the home sensor mounting screw, and then remove the home sensor.



5.22 End sensor

1. Remove the panel lower cover.
2. Remove the upper left cover.
3. Disconnect the end sensor connector (P12) on the connect B PCB.
4. Remove the end sensor mounting screw, and then remove the end sensor.

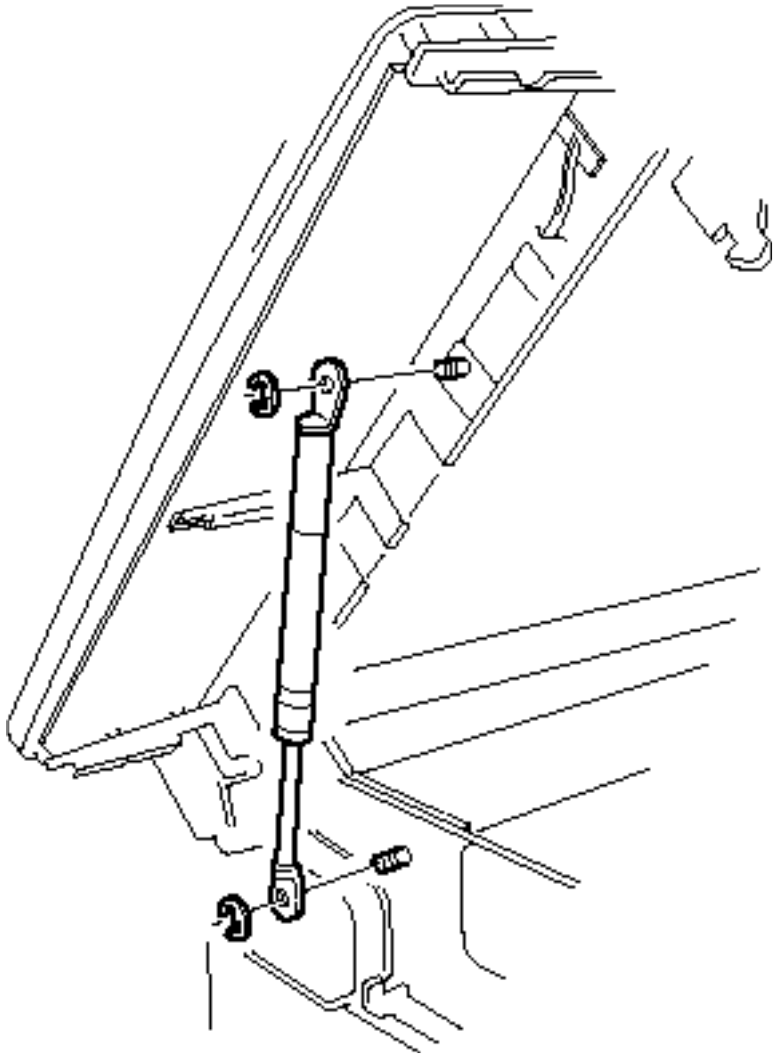
Note: If it is hard to remove the end sensor, remove the upper front cover, and then remove the end sensor.



5.23 Gas spring

1. Remove the panel lower cover.
2. Remove the front cover
3. Remove the two E-rings, and then remove the gas spring.

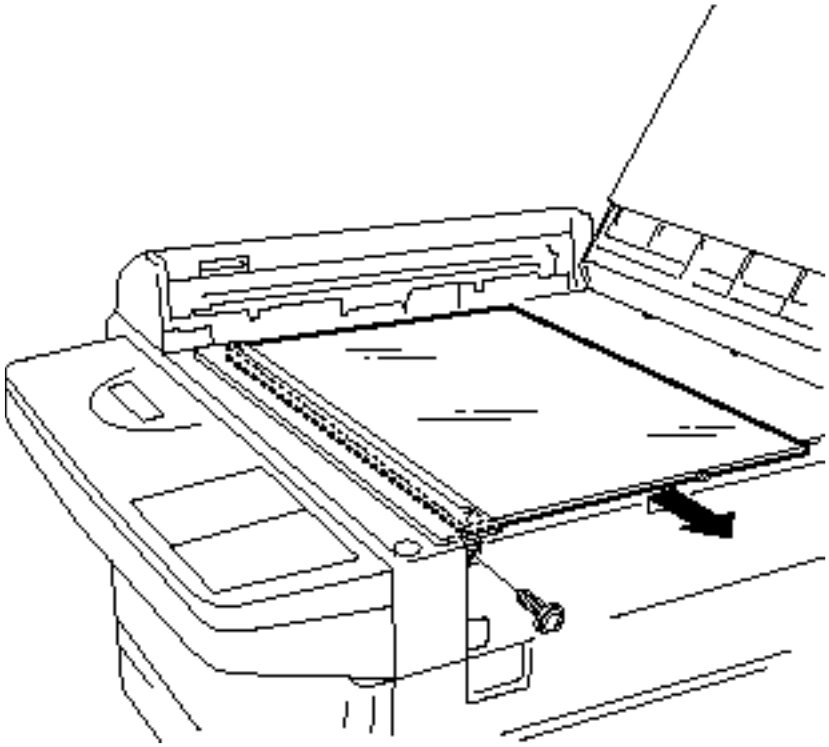
Note: Do not throw the changed gas spring into the fire.



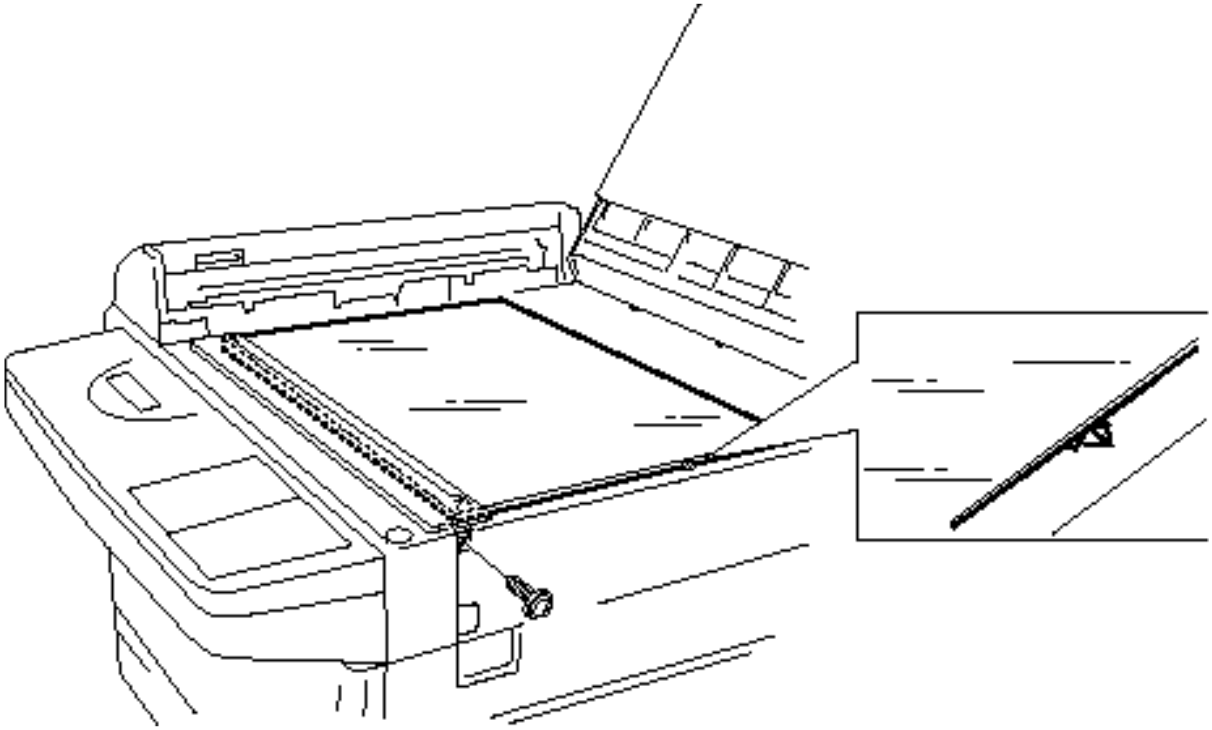
5.24 Book scanner glass

1. Remove the upper right cover.
2. Remove the upper front cover mounting screw under the upper right cover.
3. Remove the book scanner glass.

Note: If it is hard to remove the book scanner glass, remove the upper front cover.

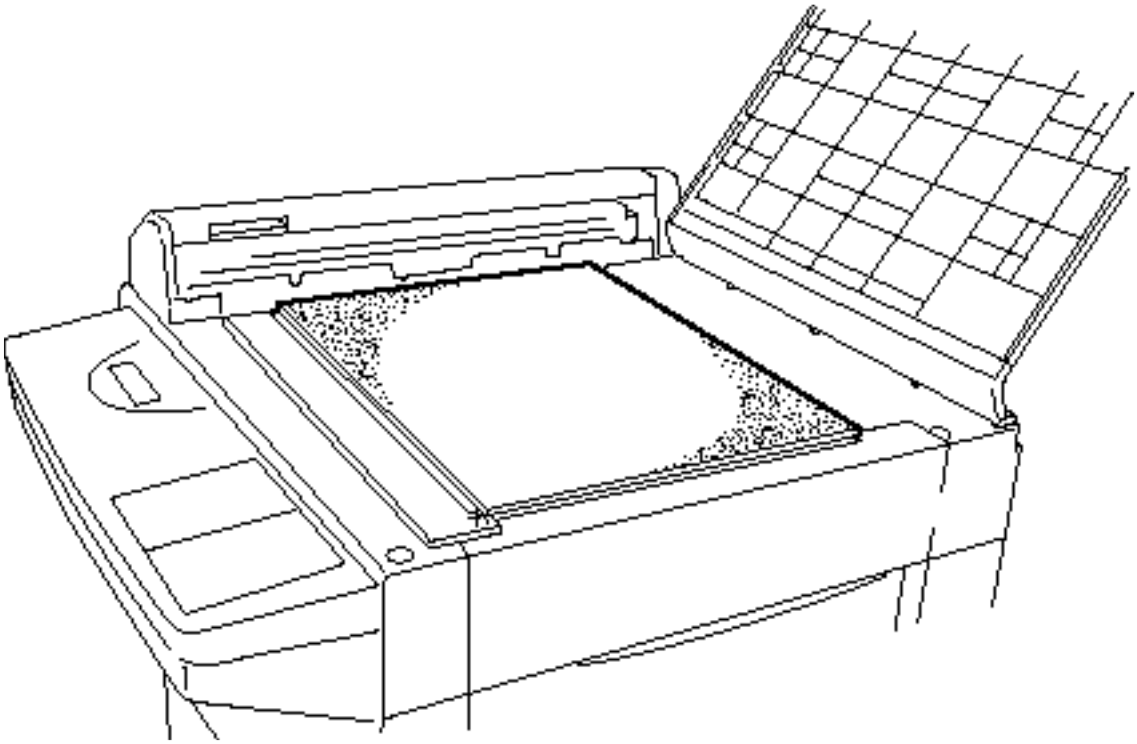


Note: When attaching the book scanner glass to the unit, be sure to insert it under the projection.



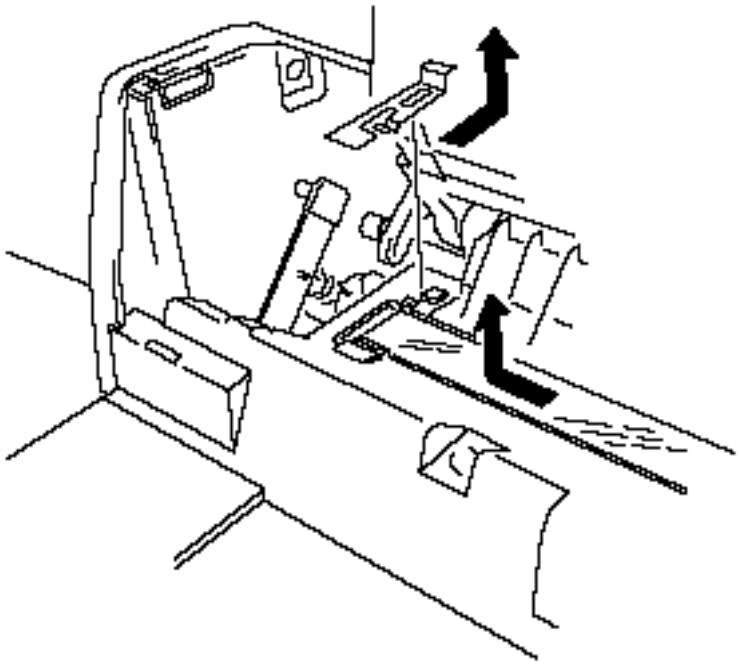
5.25 Book cover pad

1. Open the book cover.
2. Remove the used pad which is attached to book cover by the adhesive tapes.
3. Set the corner of the new pad at the front right corner of the book scanner glass.
4. Close the book cover gently to fix the pad to the book cover.



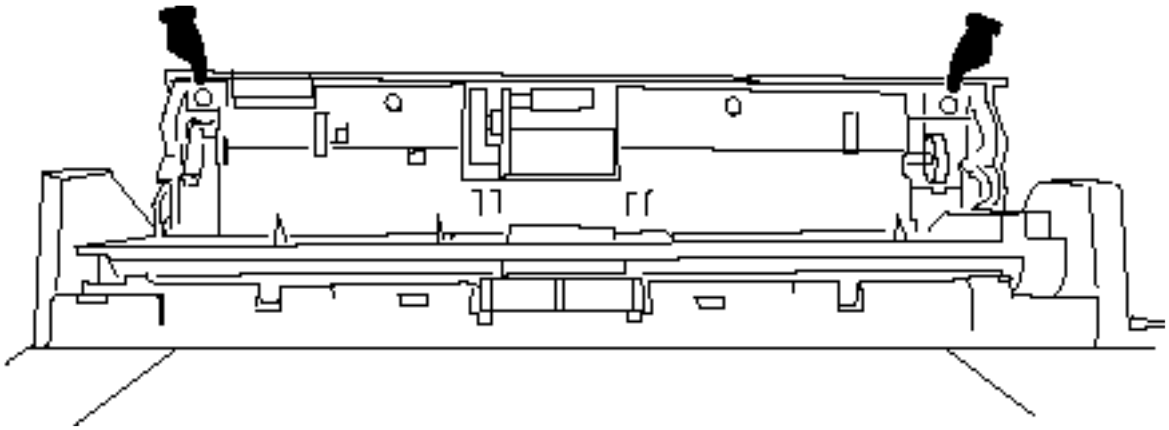
5.26 ADF contact glass

1. Open the scanner cover and inner guide assembly.
2. Remove the supporter spring with sliding it.
3. Remove the ADF contact glass.

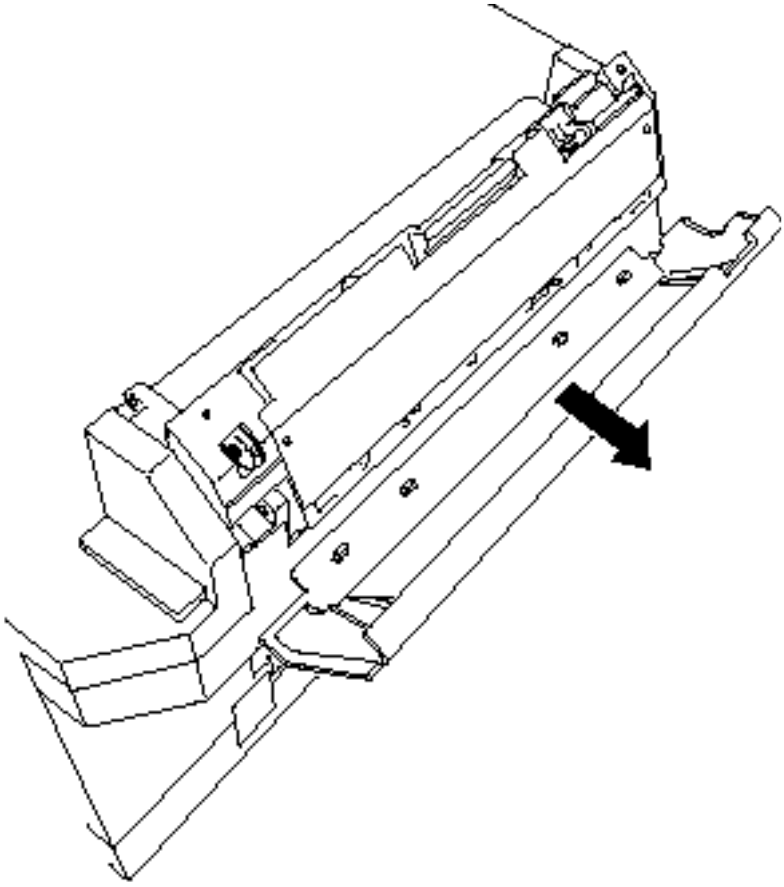


5.27 Tx cover

1. Open the scanner cover.
2. Remove the two Tx cover mounting screws.

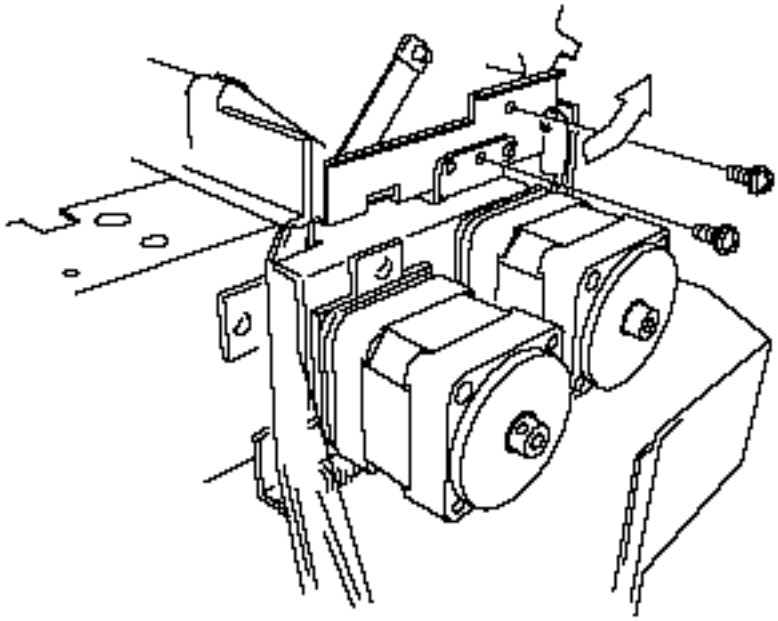


3. Release the four locking tabs, and remove the Tx cover.

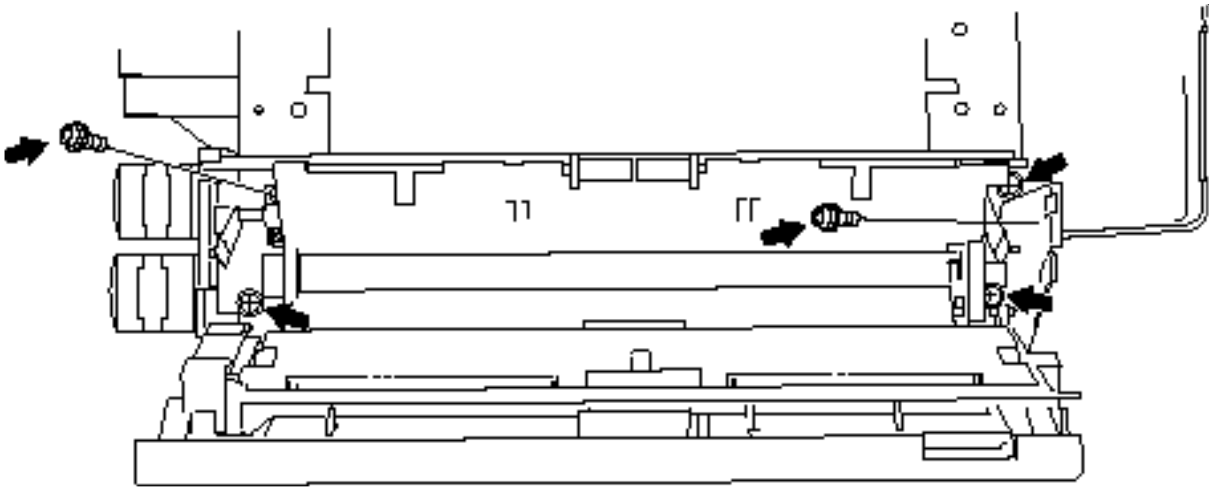


5.28 ADF assembly

1. Remove the book cover.
2. Remove the upper right cover.
3. Remove the upper rear cover.
4. Remove the upper left cover.
5. Release the rear cover.
6. Remove the shielding plate R.
7. Disconnect the four connectors (P14, P15, P16 and P90) on the connect A PCB.
8. Remove the motor bracket mounting screw.
9. Remove the hinge retainer mounting screw and release the lock with turning the hinge retainer.

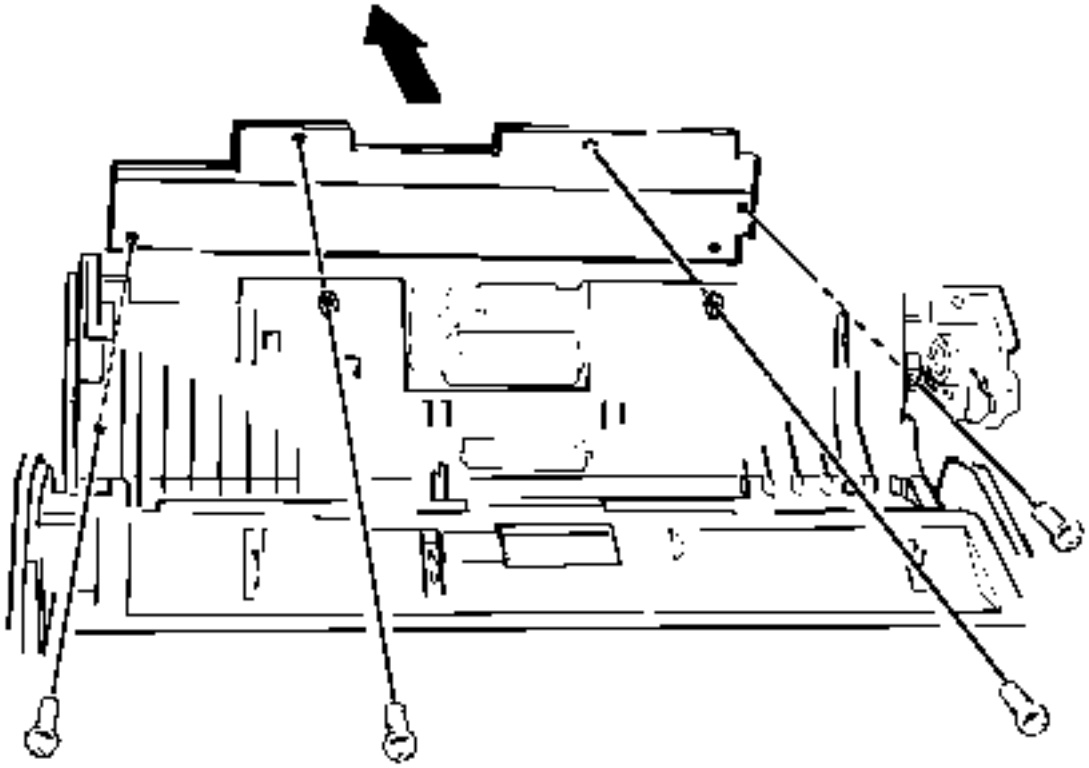


10. Remove the lock lever retainer mounting screw.
11. Remove the screw of which attach the upper front cover.
12. Remove the three ADF assembly mounting screws, and then remove the ADF assembly.



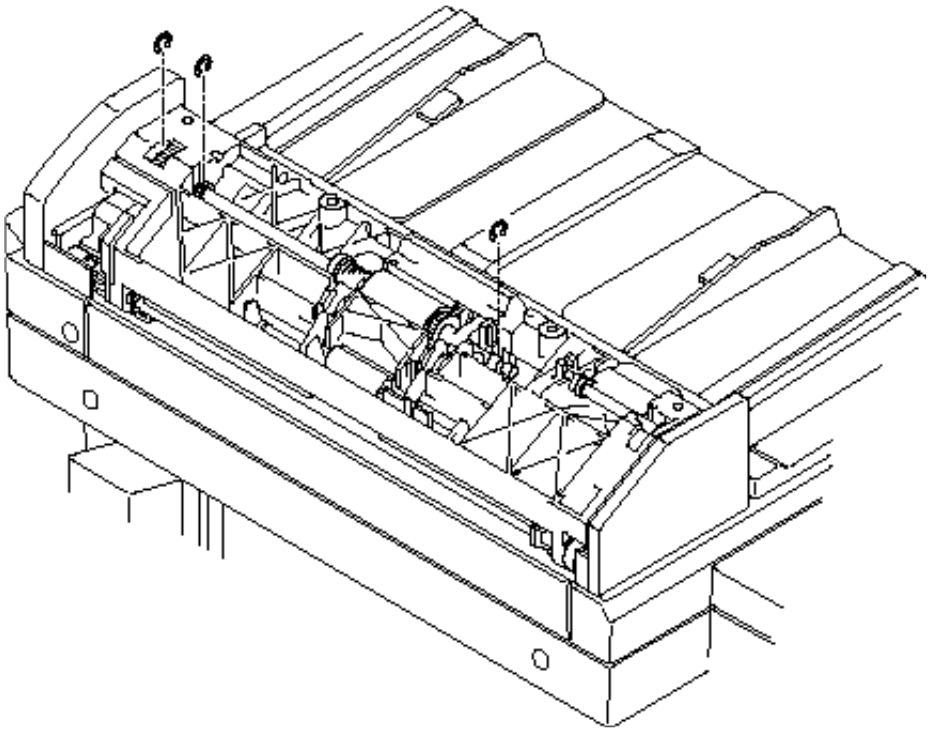
5.29 Guide supporter

1. Remove the Tx cover.
2. Remove the four guide supporter mounting screws, and then remove the guide supporter.

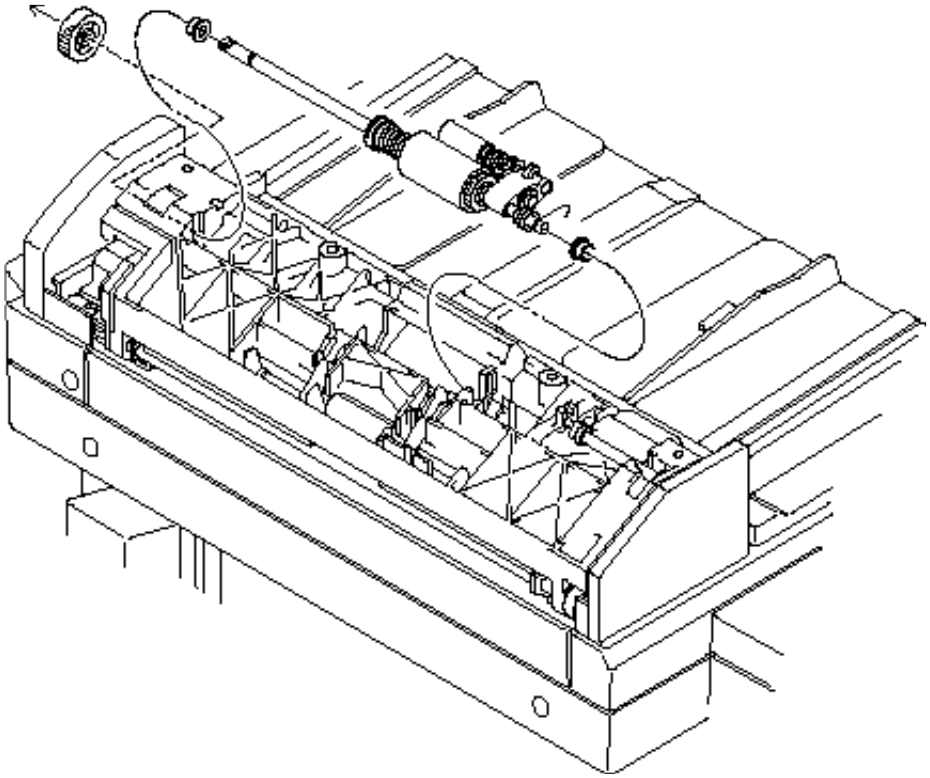


5.30 Separator roller assembly

1. Remove the Tx cover.
2. Remove the guide supporter.
3. Remove the three E-rings.

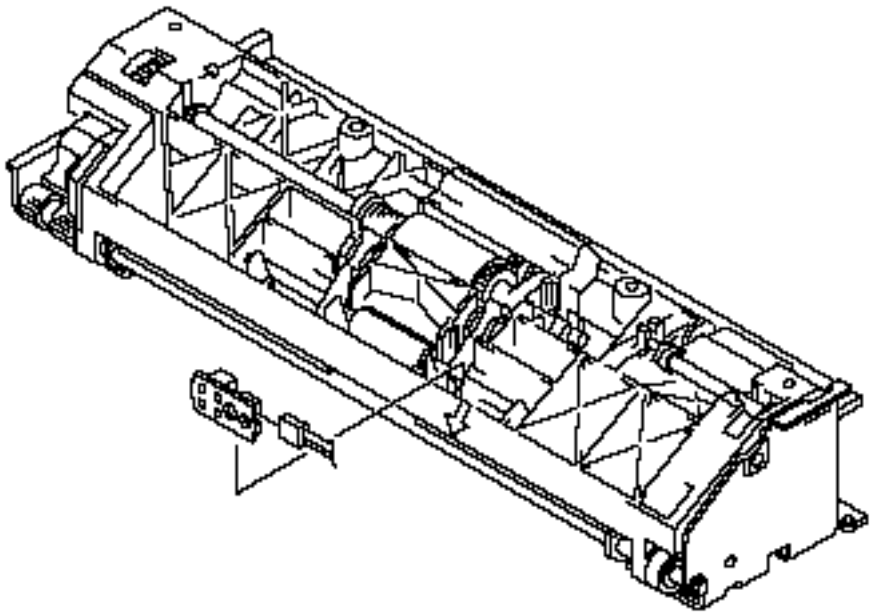


4. Remove the gear.
5. Remove the bearings, and then remove the separator roller assembly.



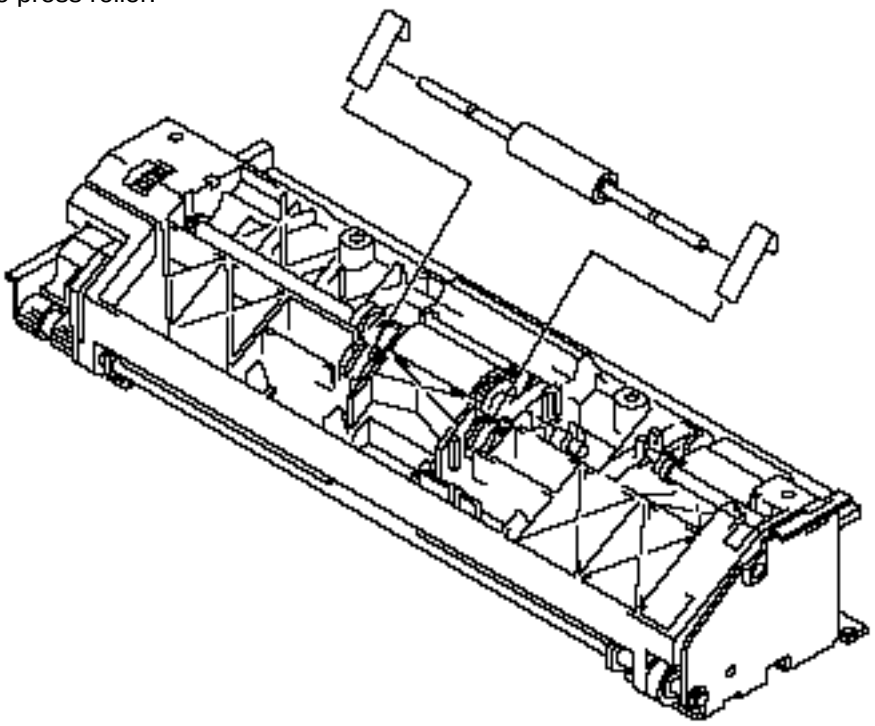
5.31 Document sensor 2 (DS2)

1. Remove Tx cover.
2. Remove the guide supporter.
3. Disconnect the connector on the DS2.
4. Release the locking tabs, and then remove the DS2.



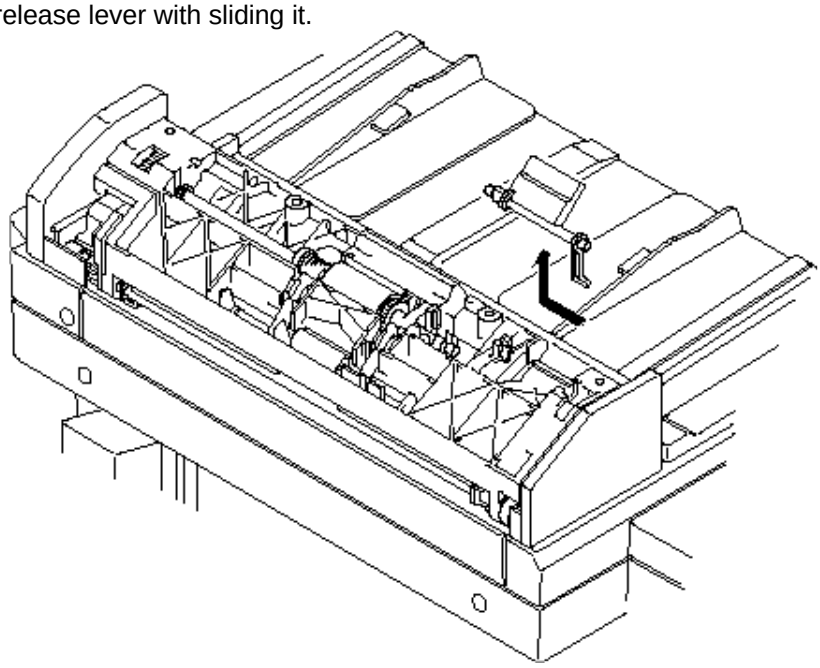
5.32 Press roller

1. Remove the Tx cover.
2. Remove the guide supporter.
3. Slide the two press springs.
4. Remove the press roller.



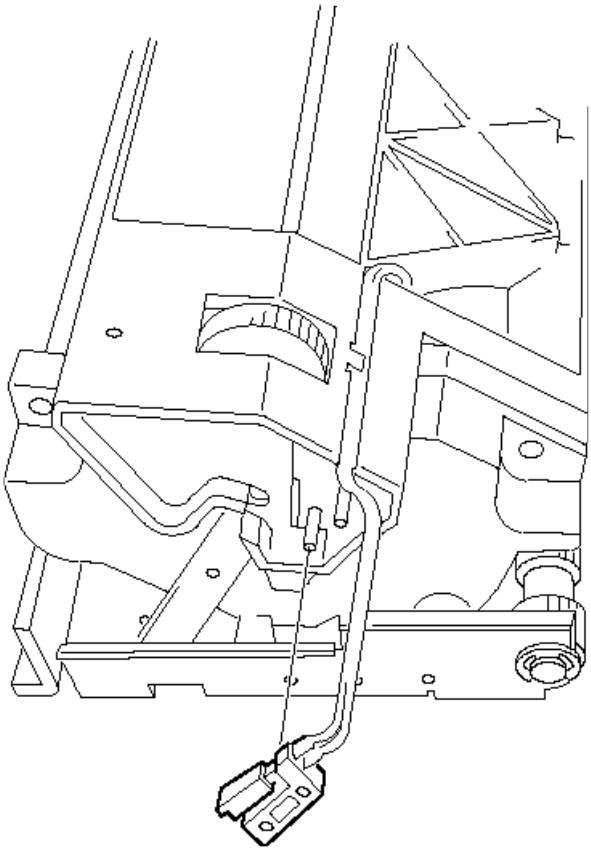
5.33 Tx cover release lever

1. Remove the Tx cover.
2. Remove the guide supporter.
3. Remove the release lever with sliding it.



5.34 ADF interlock

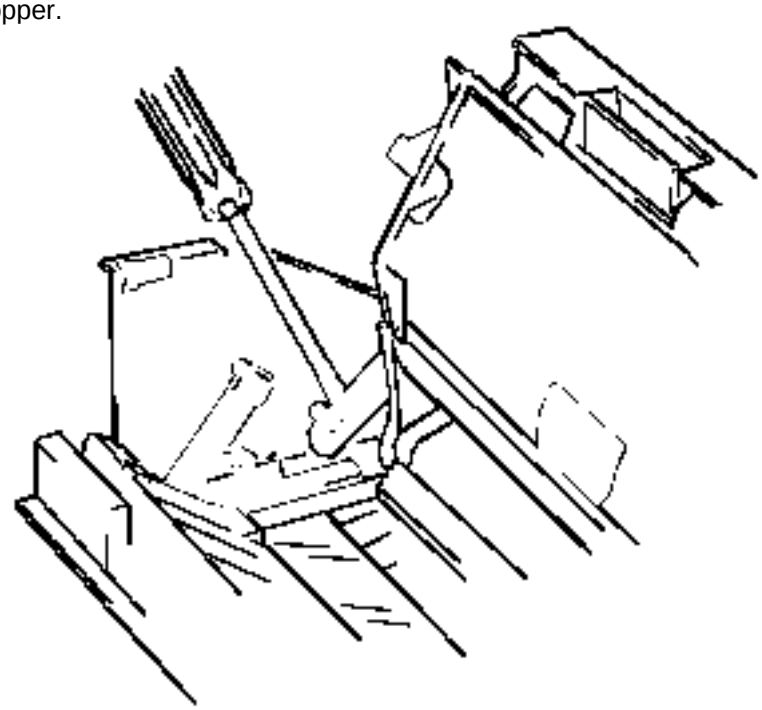
1. Remove the rear cover.
2. Remove the shielding plate R.
3. Disconnect the interlock connector (P16) on the connect A PCB.
4. Remove the Tx cover.
5. Remove the guide supporter.
6. Remove the interlock.



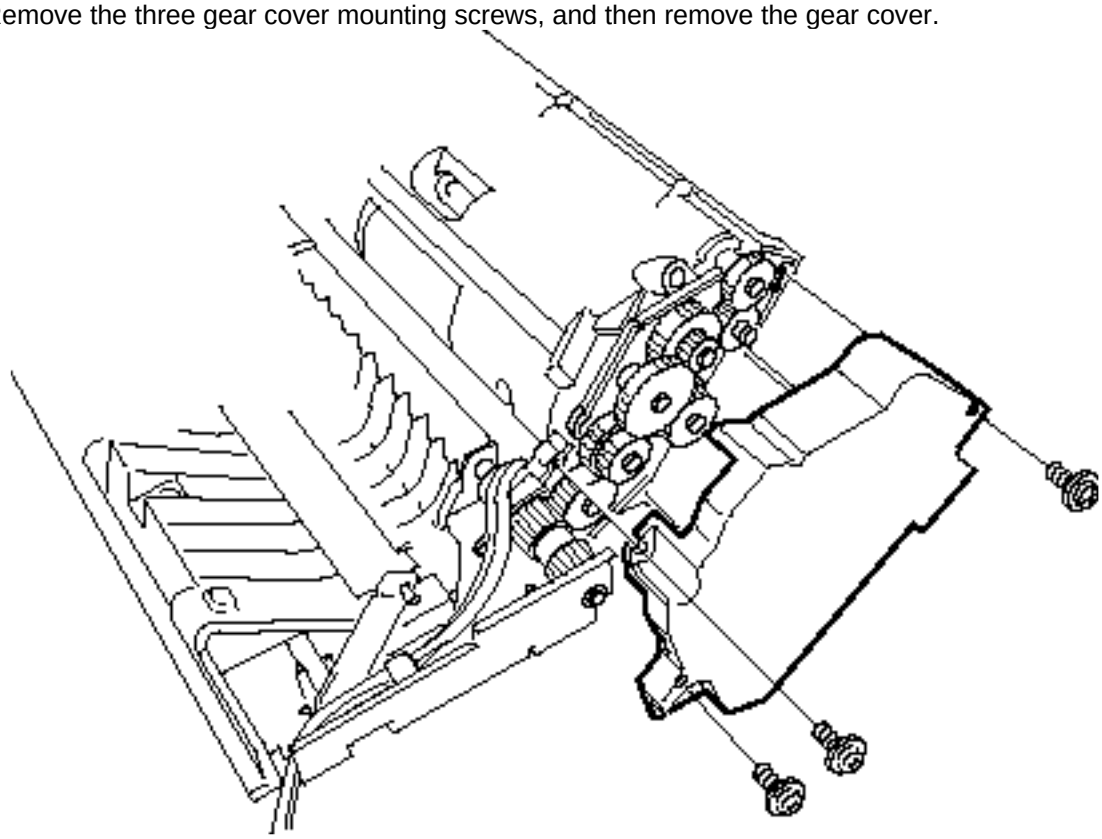
5.35 Gear cover and Gear

1. Remove the upper right cover.

2. Remove the book cover.
3. Remove the upper rear cover.
4. Remove the Tx cover.
5. Open the scanner cover.
6. Remove the stopper.



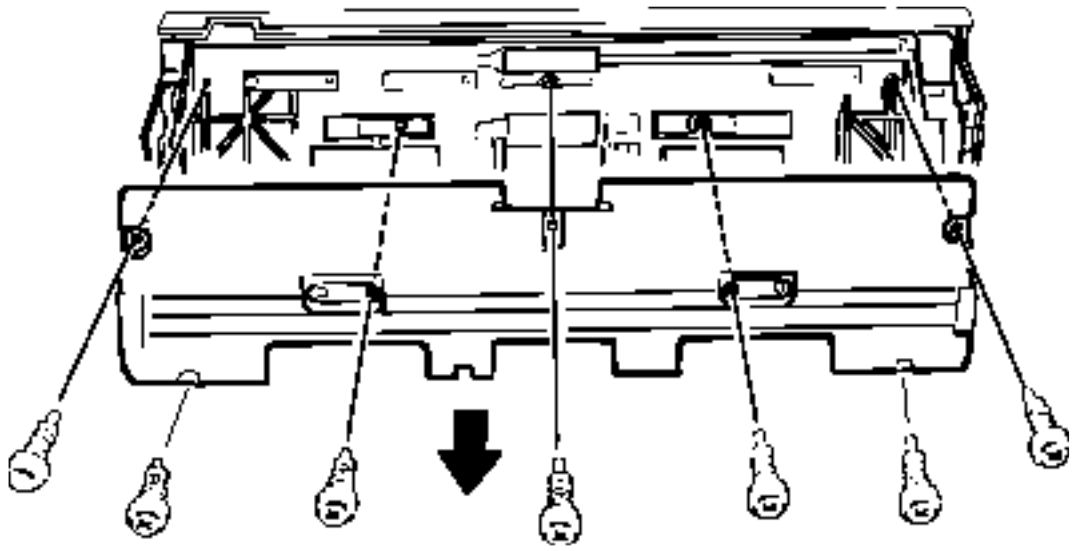
7. Remove the three gear cover mounting screws, and then remove the gear cover.



8. If the E-ring is attached to the gear you want to remove, remove the gear after removing its E-ring.

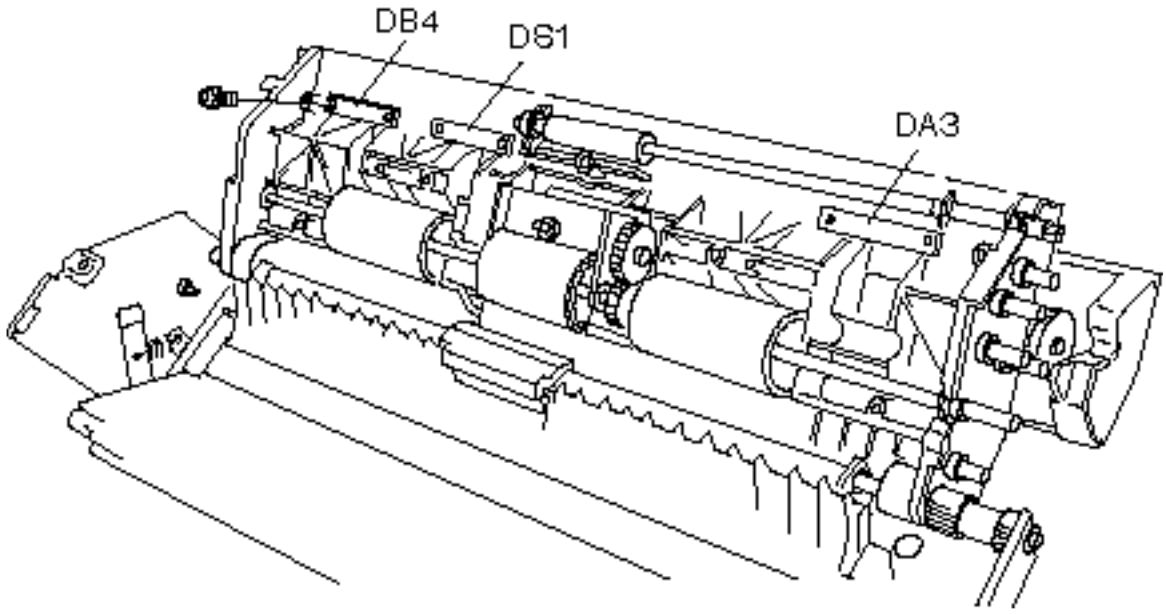
5.36 Inner guide B

1. Remove the Tx cover.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the seven inner guide B mounting screws, and then remove the inner guide B.



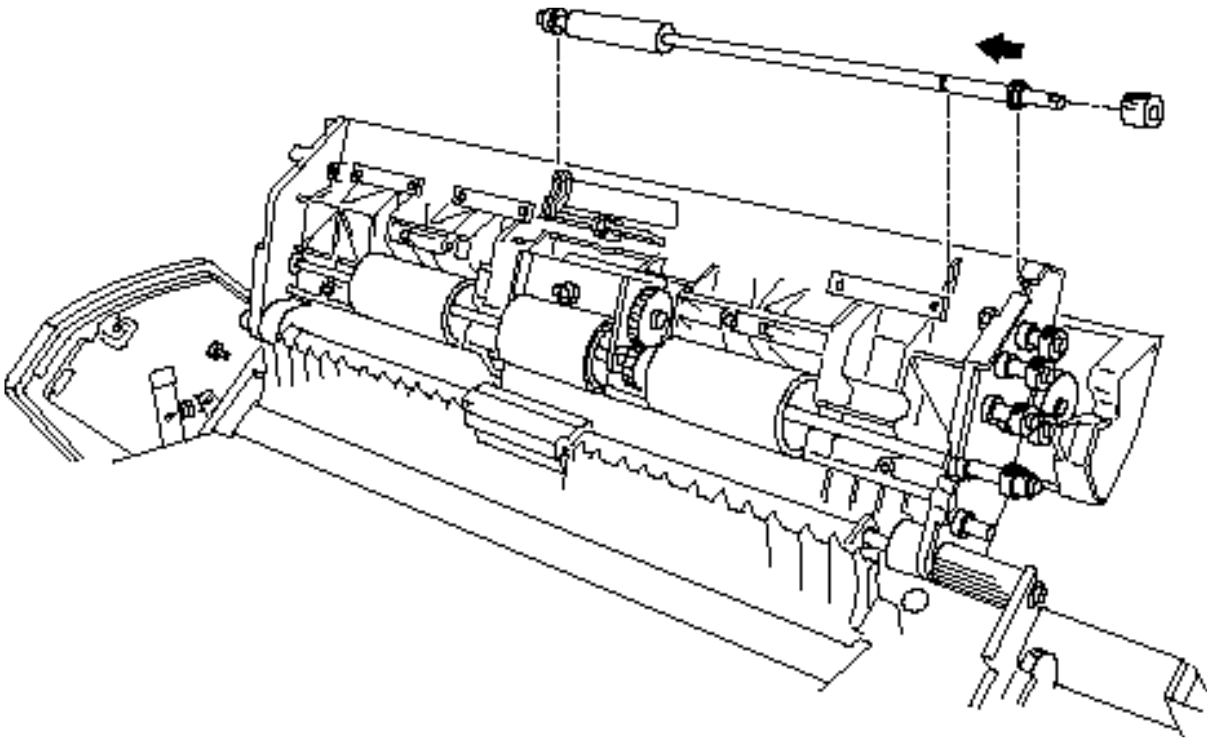
5.37 Sensors (DA3, DS1, DB4)

1. Remove the Tx cover.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the inner guide B.
5. Remove the each sensor mounting screw, and then remove each one.



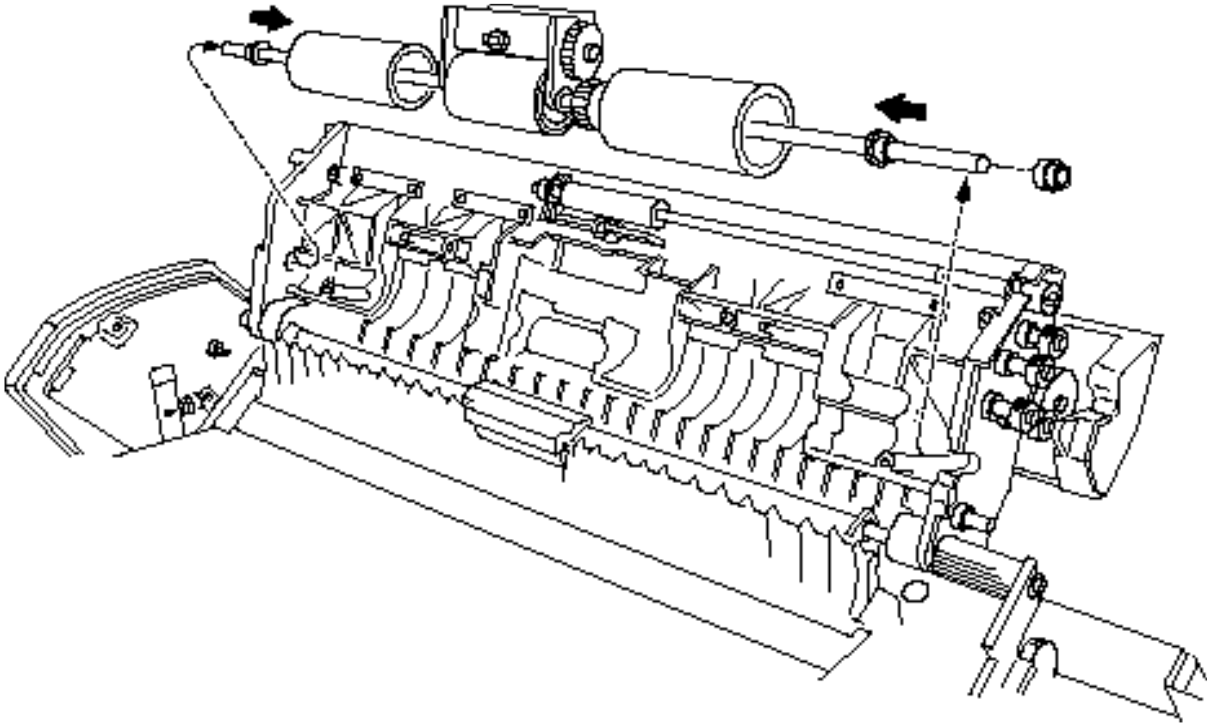
5.38 Exit roller

1. Remove the upper right cover.
2. Remove the book cover.
3. Remove the upper rear cover.
4. Remove the Tx cover.
5. Open the scanner cover.
6. Remove the stopper.
7. Remove the gear cover.
8. Remove the inner guide B.
9. Remove the gear (29T).
10. Remove the exit roller with sliding it.

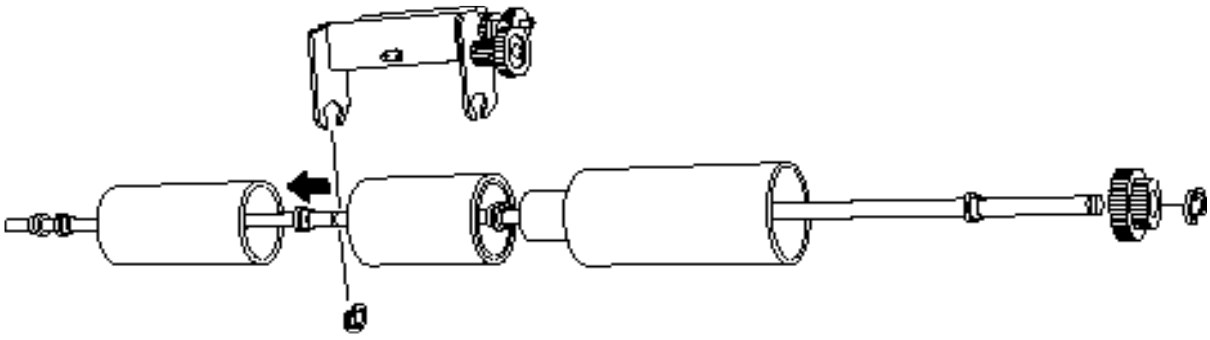


5.39 Feed roller assembly/Retard roller assembly

1. Remove the upper right cover.
2. Remove the book cover.
3. Remove the upper rear cover.
4. Remove the Tx cover.
5. Open the scanner cover.
6. Remove the stopper.
7. Remove the gear cover.
8. Remove the inner guide B.
9. Remove the gear (47T) attaches above the feed roller assembly.
10. Remove the bearing, and then remove the feed roller assembly.

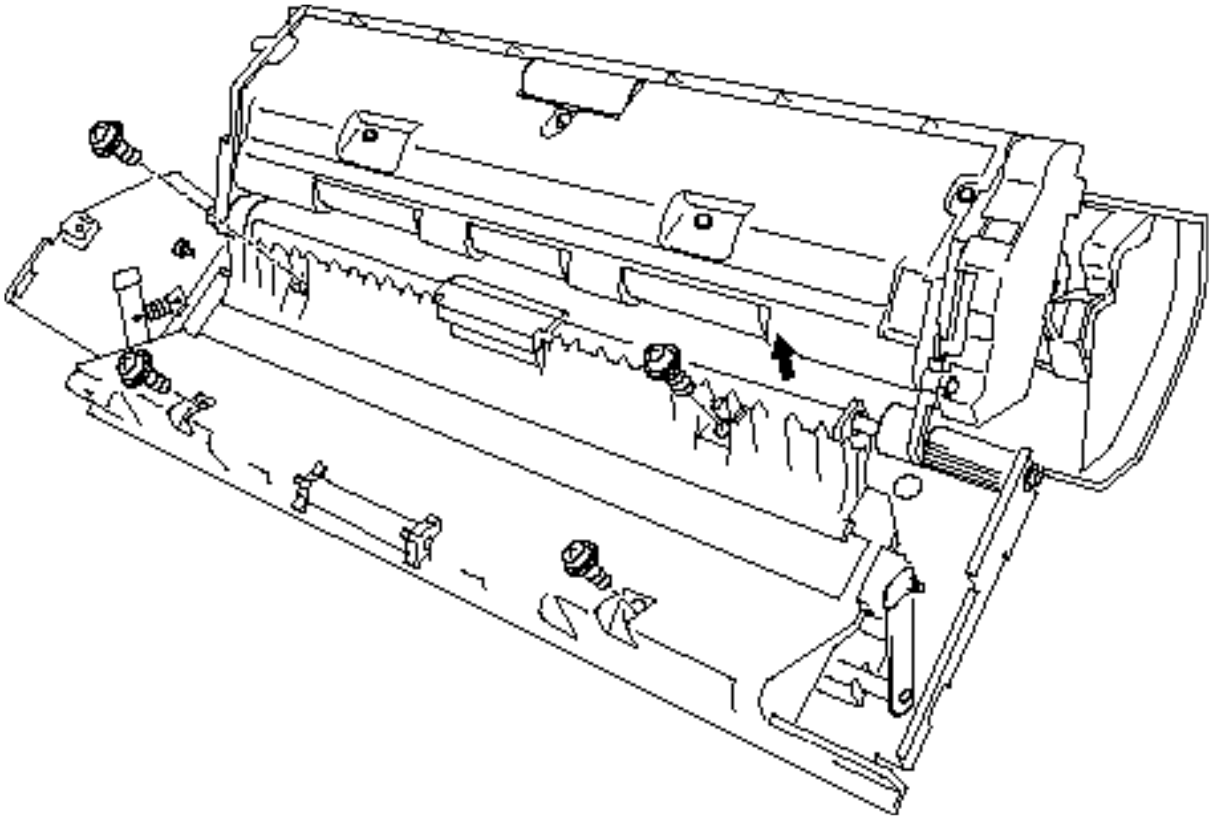


11. Remove the E-ring, and then remove the retard roller assembly.



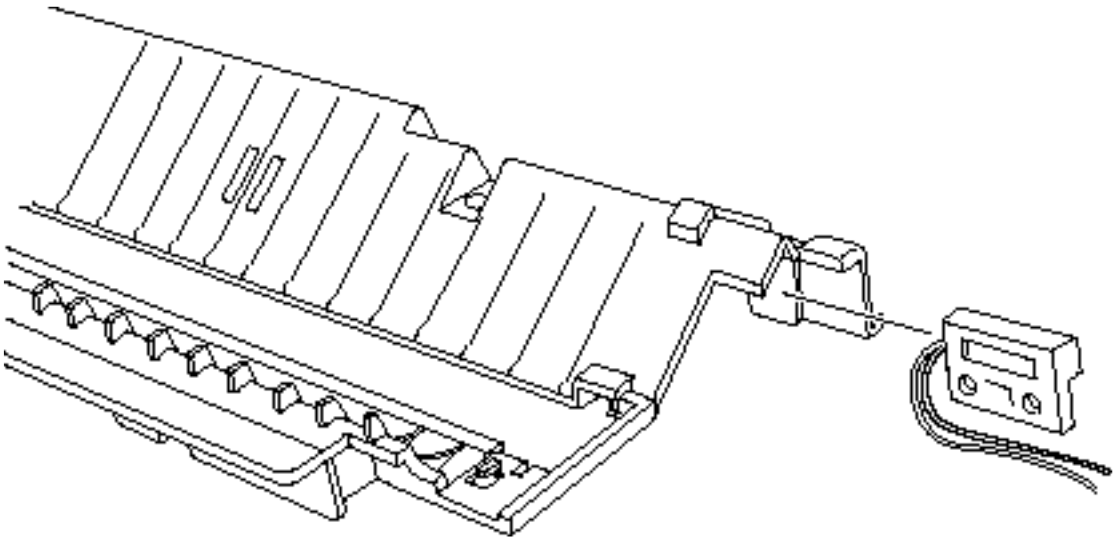
5.40 Outer guide B

1. Remove the ADF assembly.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the four outer guide B mounting screws, and then remove the outer guide B.



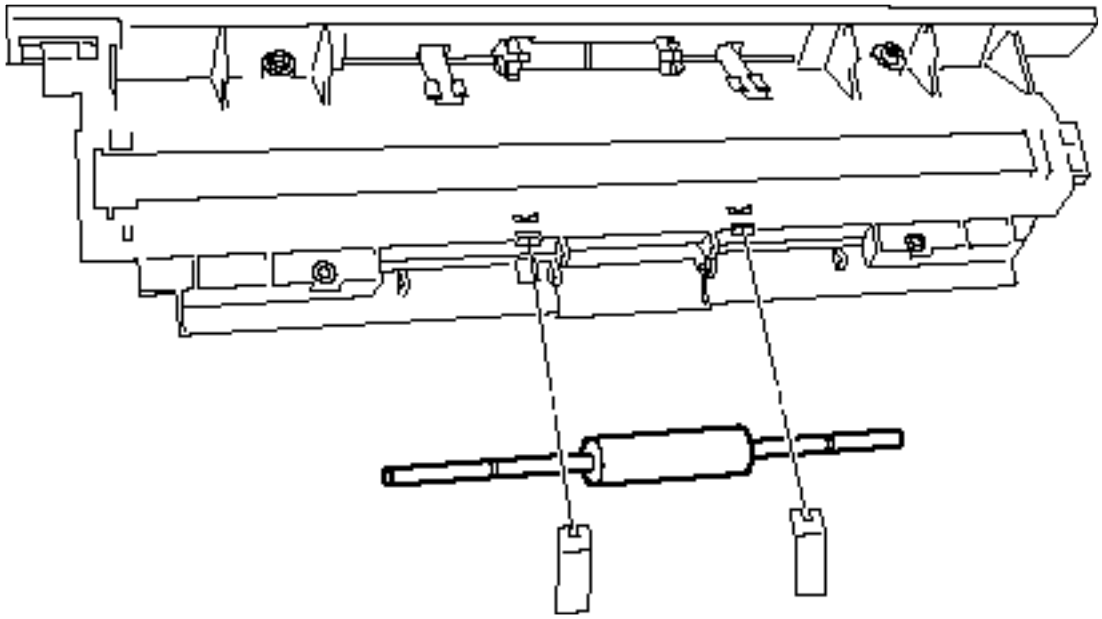
5.41 ADF permit sensor (APS)

1. Remove the ADF assembly.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the outer guide B.
5. Remove the APS with sliding it.



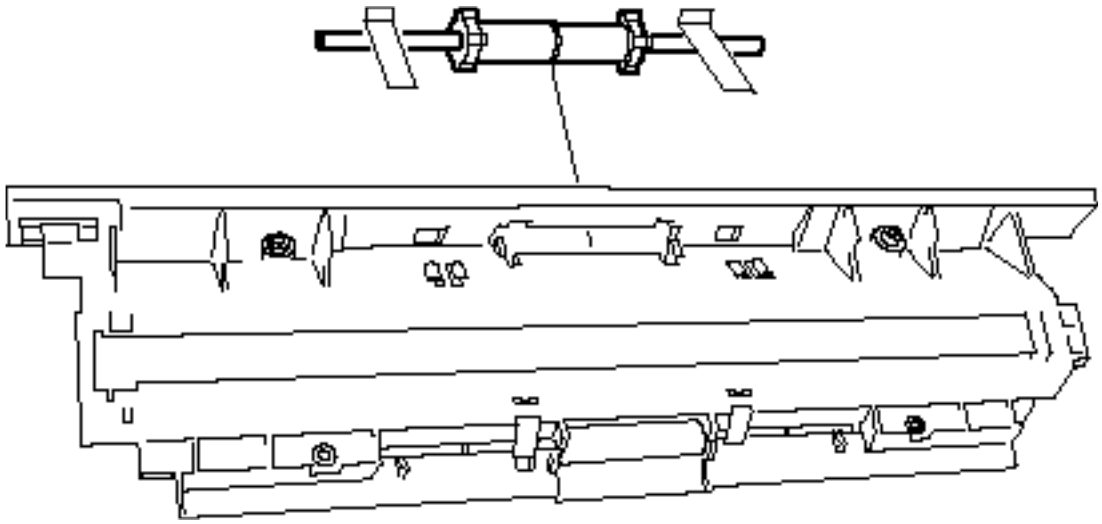
5.42 Press roller

1. Remove the ADF assembly.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the outer guide B.
5. Remove the press spring B, and then remove the press roller.



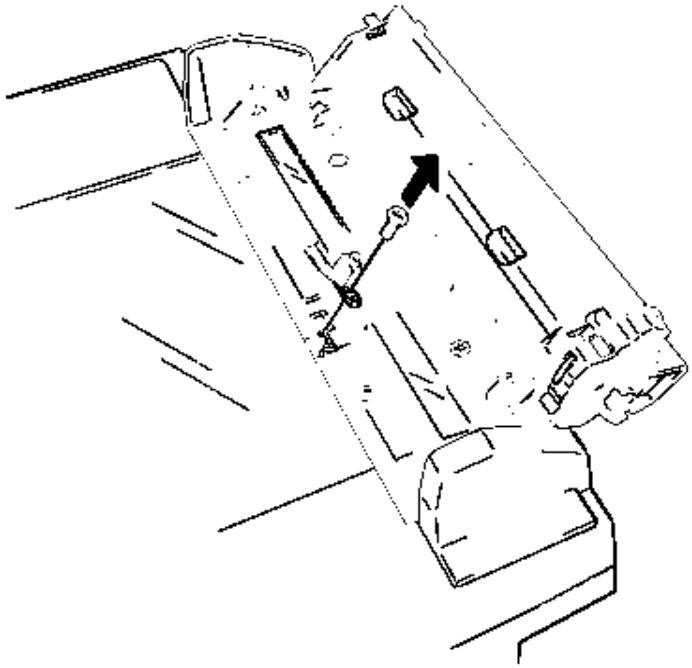
5.43 Exit press roller

1. Remove the ADF assembly.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the outer guide B.
5. Remove the press spring C, and then remove the exit press roller.



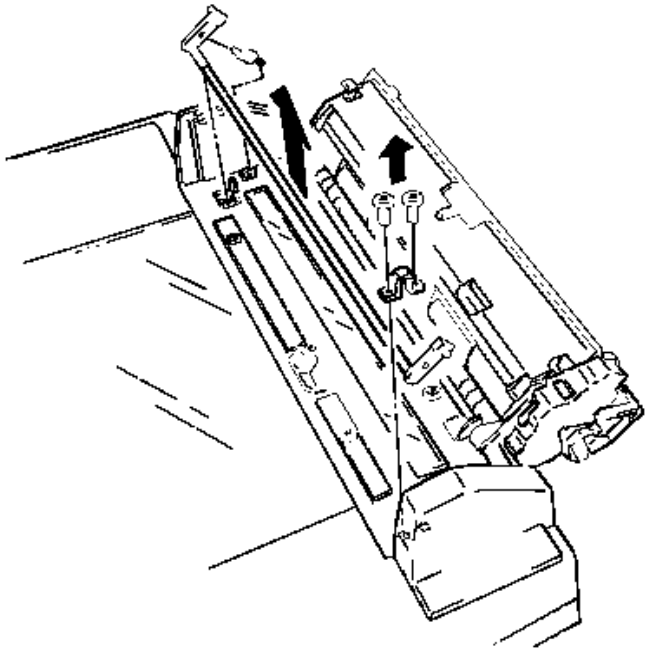
5.44 Confirmation stamp

1. Remove the rear cover.
2. Remove the shielding plate R.
3. Disconnect the confirmation stamp connector (P19) on the connect A PCB.
4. Remove the ADF assembly.
5. Open the scanner cover.
6. Remove the stopper.
7. Remove the outer guide B.
8. Remove the confirmation stamp mounting screw, and then remove the stamp.



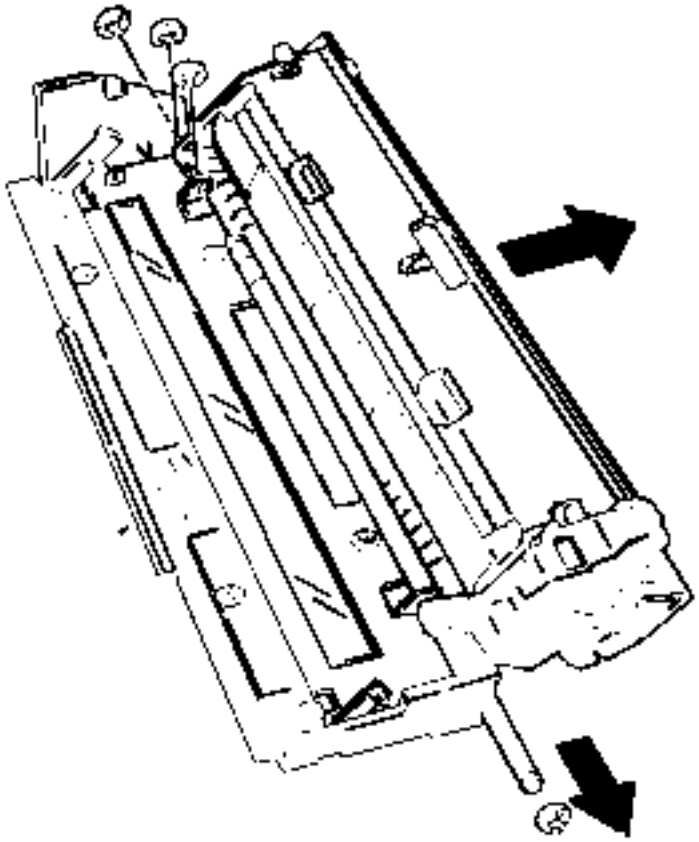
5.45 Lock lever shaft

1. Remove the ADF assembly.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the outer guide B.
5. Remove the two lock lever retainer mounting screws, and then remove the lock lever retainer.
6. Remove the spring, and then remove the lock lever shaft.



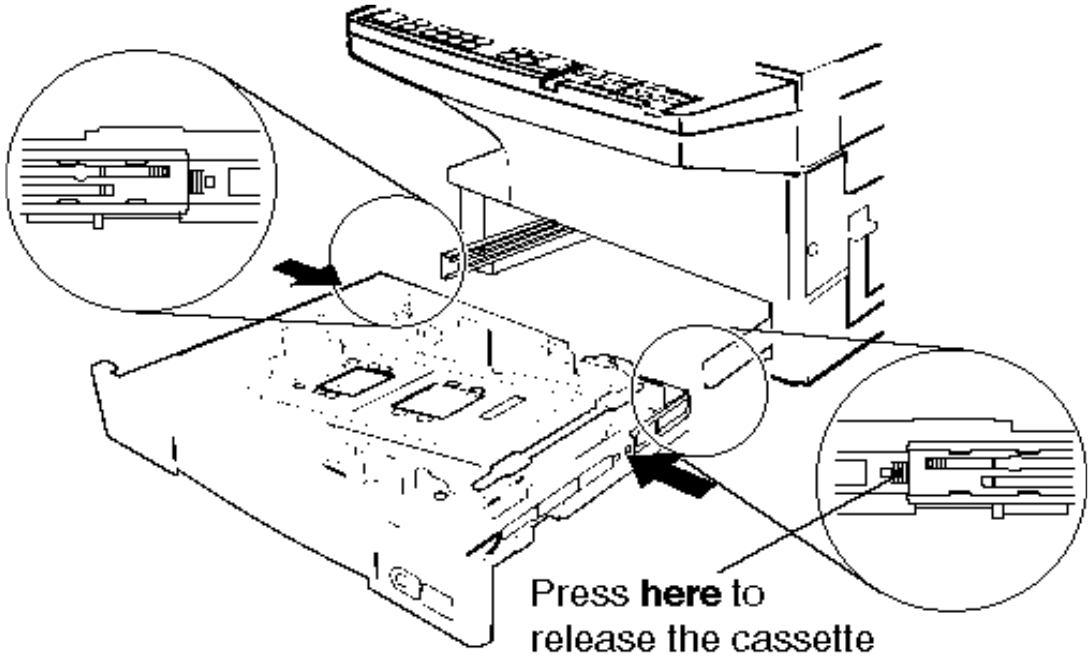
5.46 Base frame assembly

1. Remove the ADF assembly.
2. Open the scanner cover.
3. Remove the stopper.
4. Remove the outer guide B.
5. Remove the six E-rings and remove the hinge shaft.
6. Remove the base frame assembly.

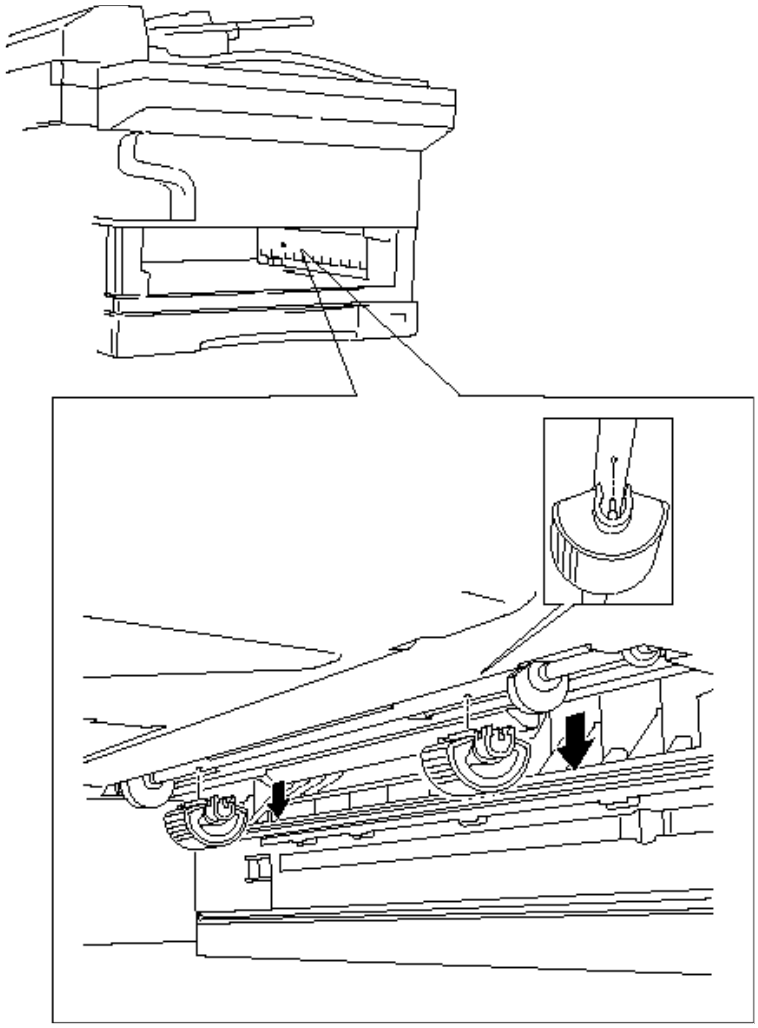


5.47 Pickup roller

1. Pull out the paper cassette.



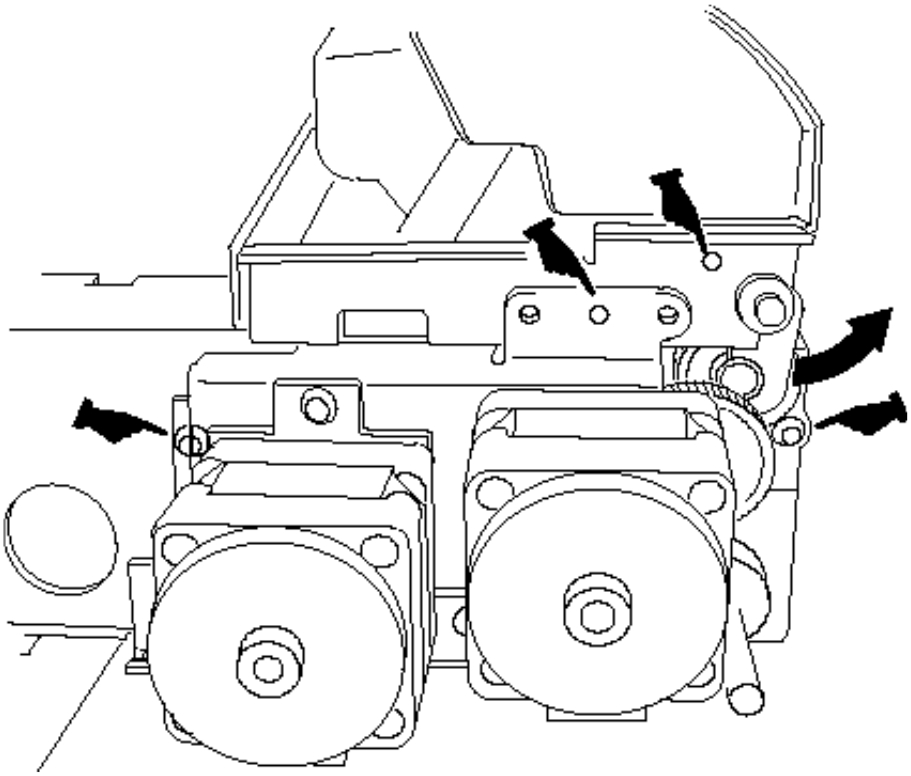
2. Turn the pickup roller until the pickup roller appears, and then remove the pickup roller.



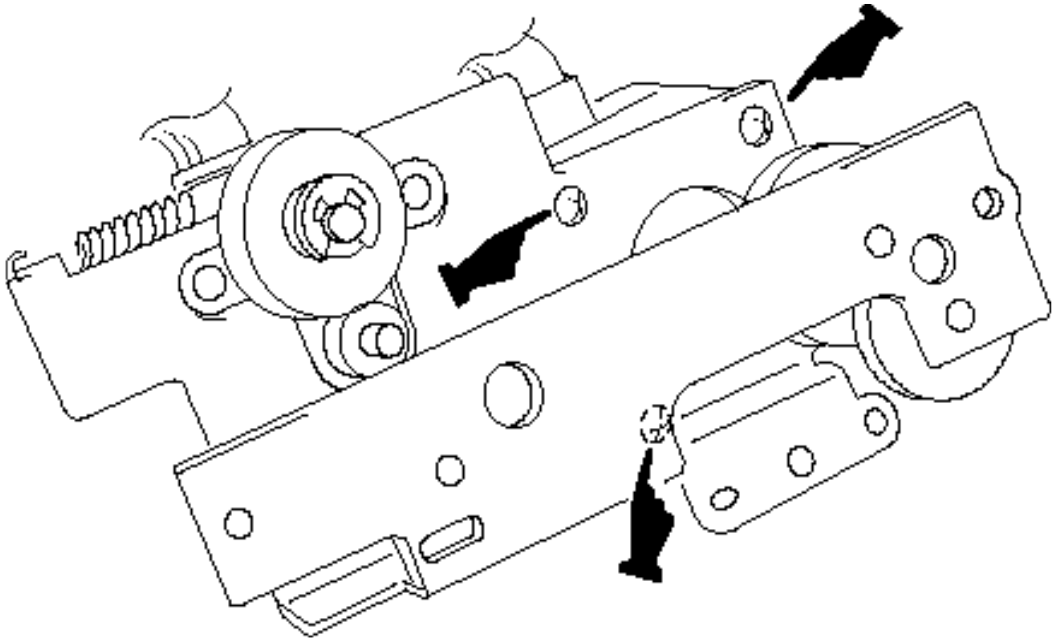
Note: When attaching the pickup roller to the unit, insert the pin of the pickup roller pad into the hole of the shaft.

5.48 ADF motor and FBS motor

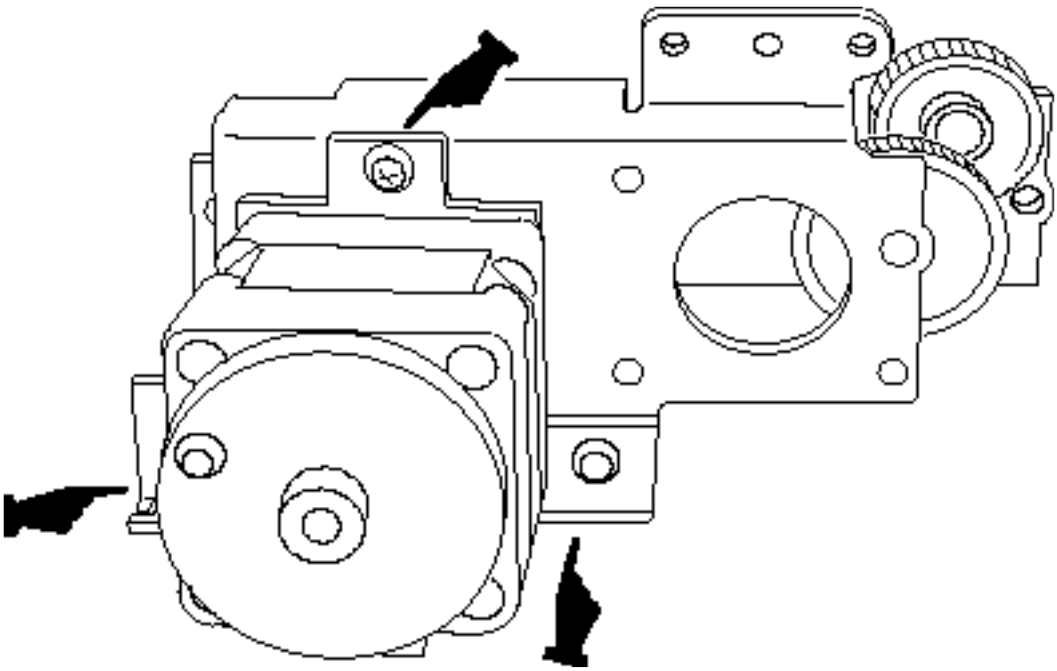
1. Remove the upper right cover.
2. Remove the book cover.
3. Remove the upper rear cover.
4. Remove the upper left cover.
5. Remove the hinge retainer mounting screw and release the hook with turning the hinge retainer.
6. Disconnect the ADF motor and FBS motor connectors (P20A and P20B) on the connect A PCB.
7. Remove the three motor bracket mounting screws, and then remove the motor bracket.



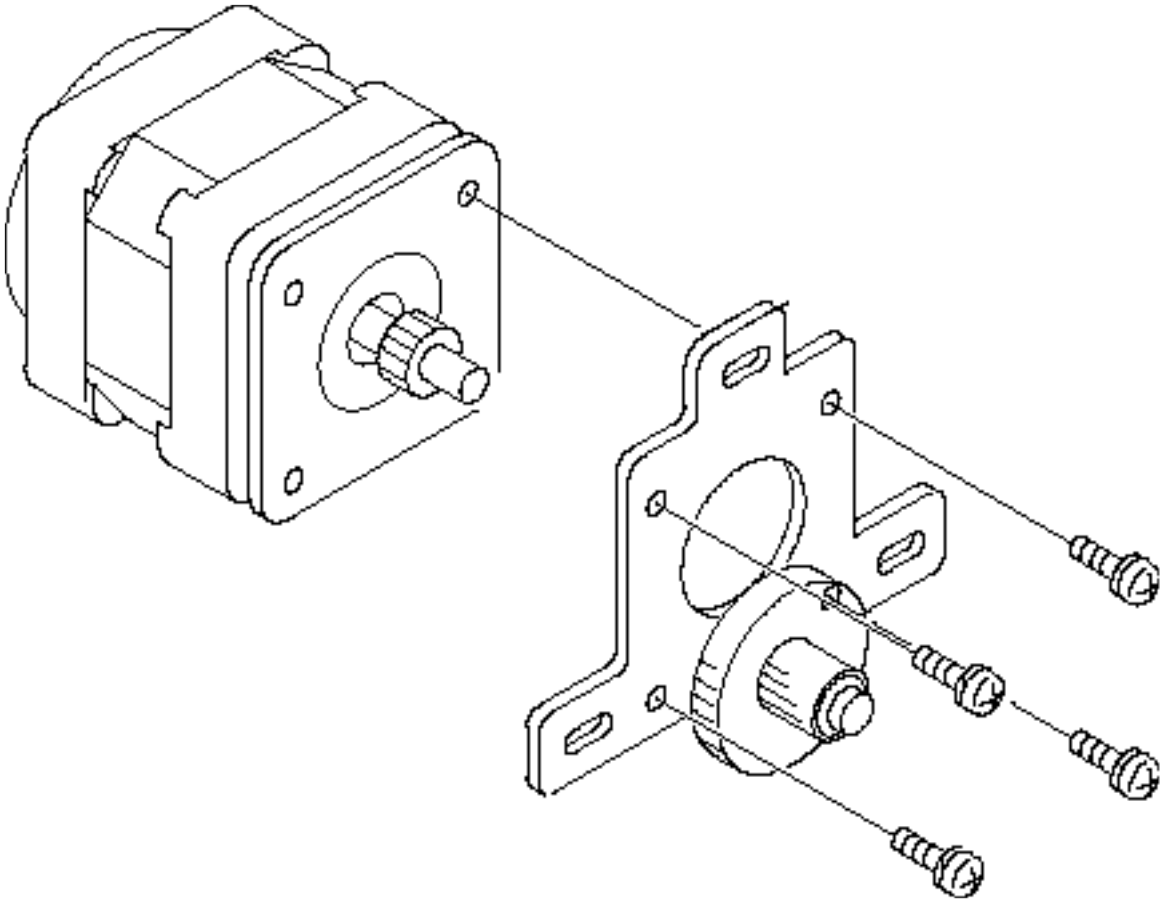
8. Remove the three ADF motor mounting screws, and then remove the ADF motor.



9. Remove the three pulley bracket mounting screws, and then remove the pulley bracket.

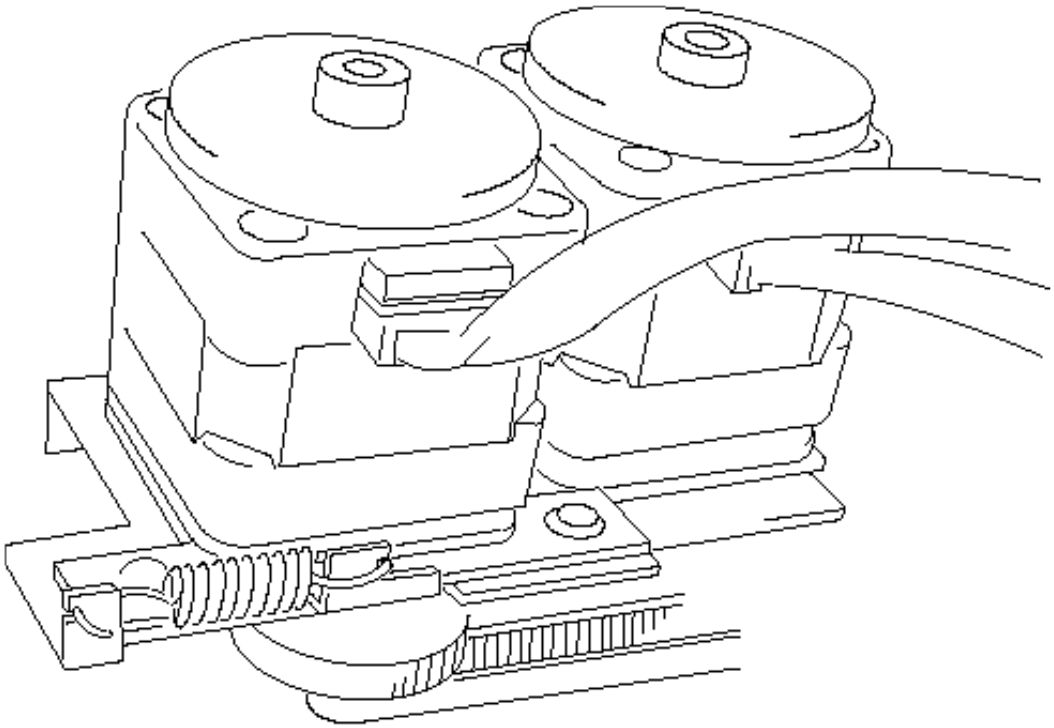


10. Remove the four FBS motor mounting screws, and then remove the FBS motor.



How to re-attach the motor:

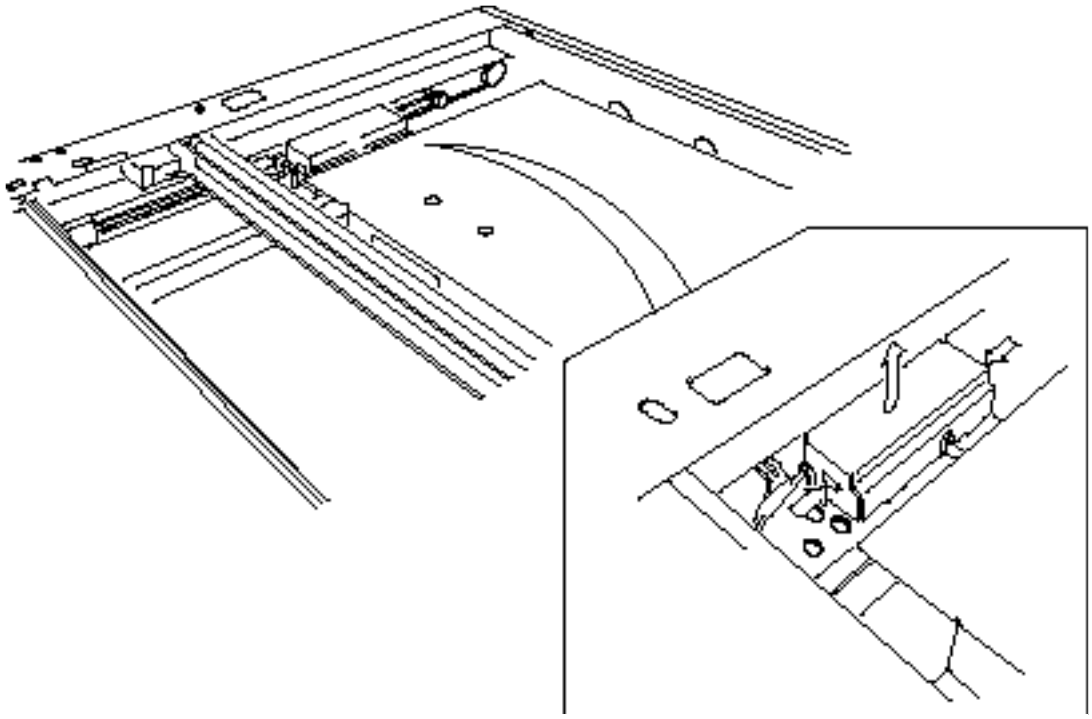
1. Attach the FBS motor to the pulley bracket using the motor's four screws.
2. Attach the pulley bracket to the motor bracket using the pulley bracket's three screws temporarily.
3. Attach the ADF motor to the motor bracket using the motor's three screws.
4. Put the belt on the gear.
5. Hang the hinge retainer on the stud of gear (47T).
6. Attach the hinge retainer using its screw.
7. Attach the motor bracket to the fax unit using the motor bracket's three screws.
8. Attach the spring between the motor bracket and the pulley bracket.



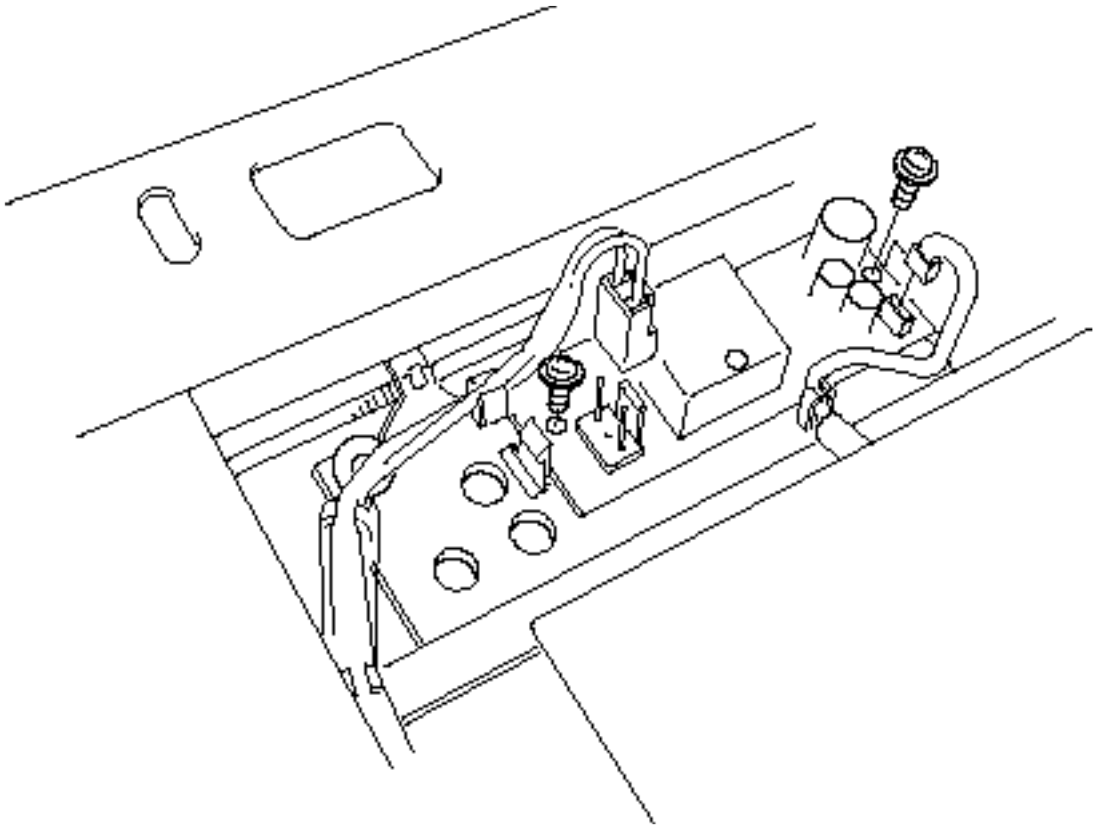
9. Attach gently the pulley bracket's three screws you attached temporarily (step 2) as the belt tighten.
10. Connect the ADF motor and FBS motor connectors to the connect A PCB.

5.49 Inverter PCB

1. Remove the upper right cover.
2. Remove the book scanner glass.
3. Release the two locking tabs, and then remove the inverter cover.

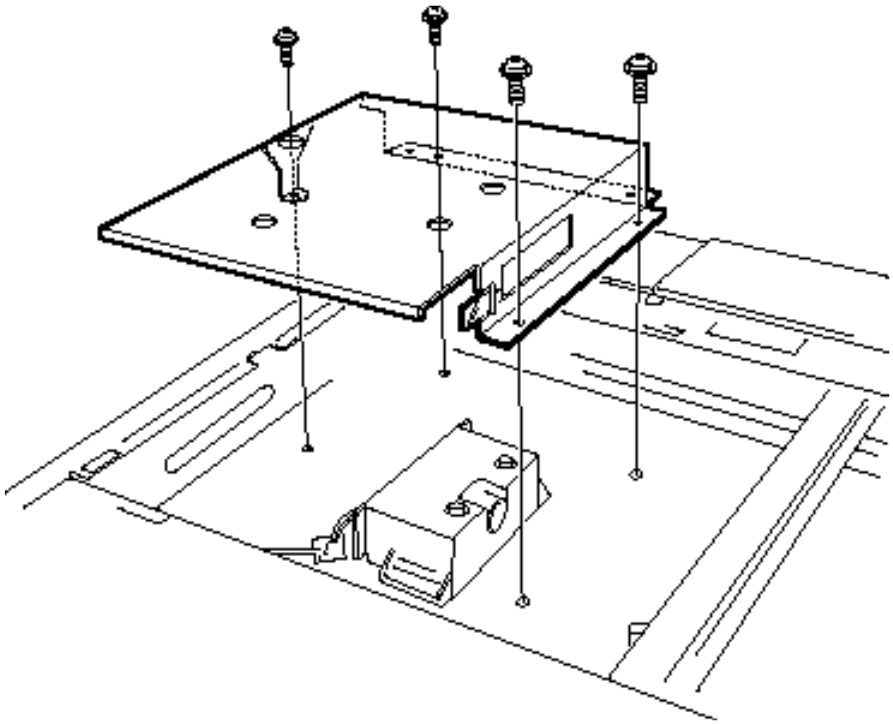


4. Disconnect the two connectors on the inverter PCB
5. Remove the two inverter PCB mounting screws, and then remove the inverter PCB.

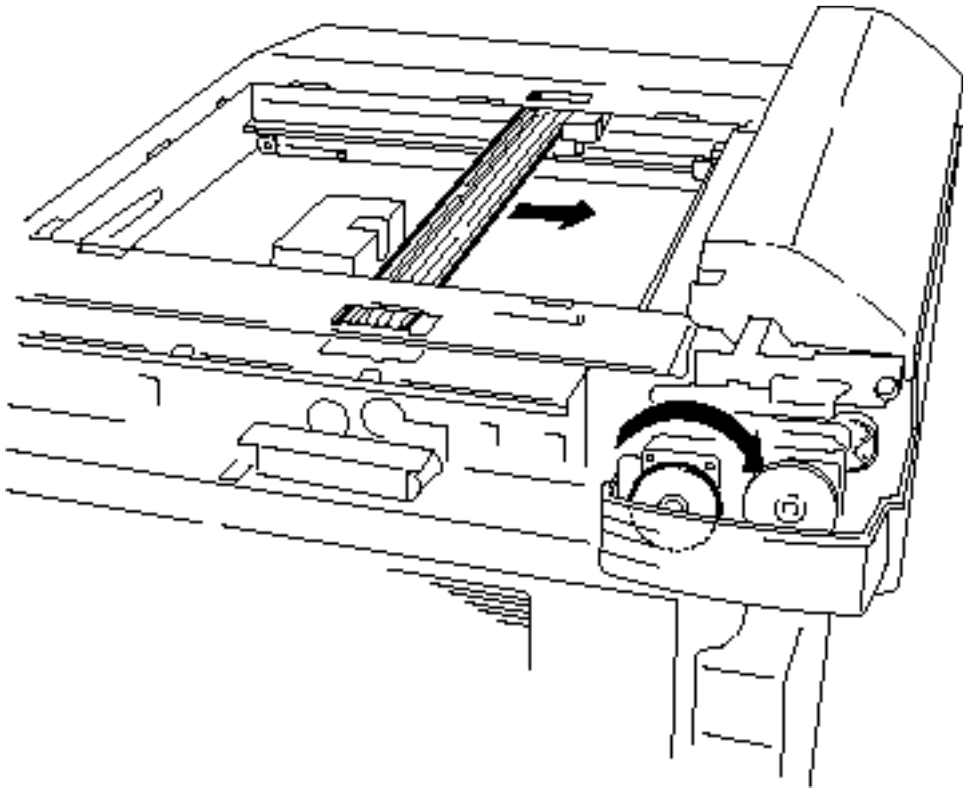


5.50 Mirror carriage A and B

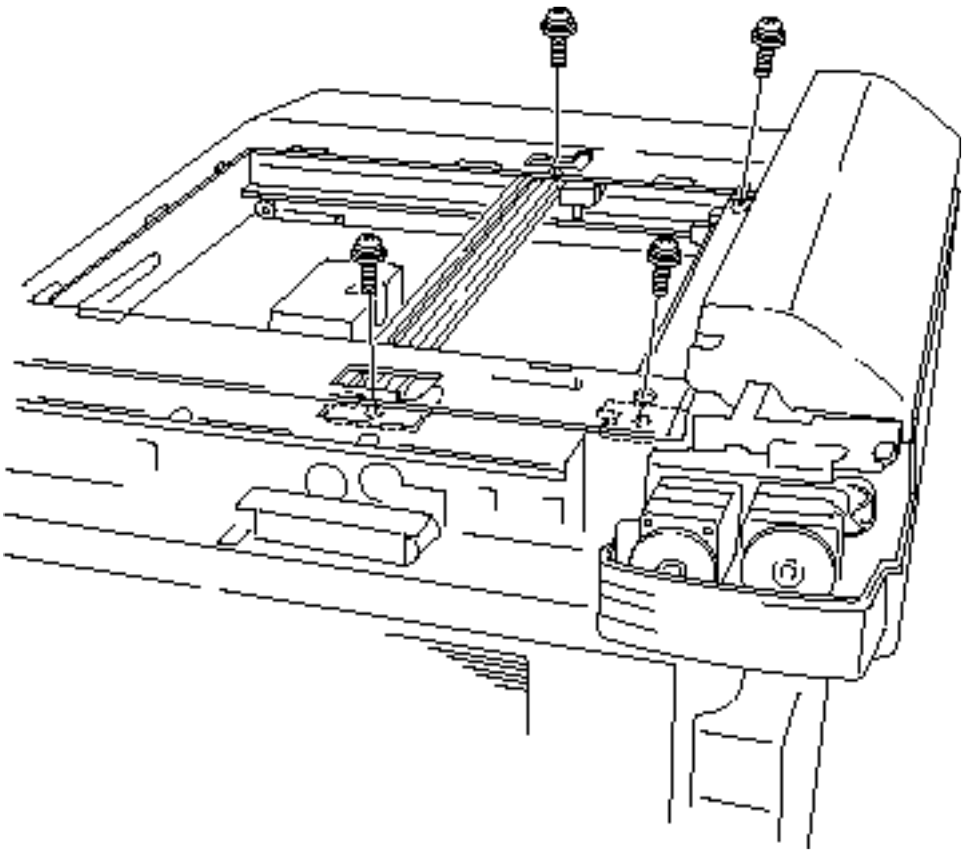
1. Remove the book cover.
2. Remove the upper right cover.
3. Remove the upper rear cover.
4. Remove the upper front cover.
5. Remove the book scanner glass.
6. Remove the five FBS scanner cover mounting screws, and then remove the FBS scanner cover.



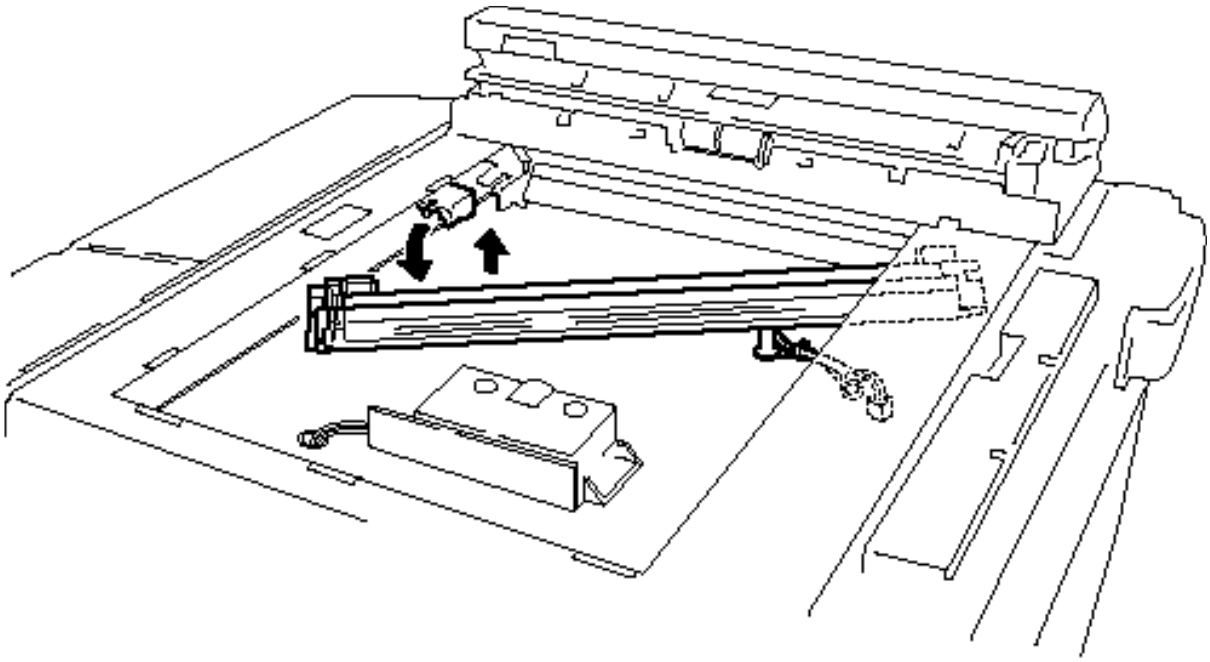
7. Move the mirror carriage A by turning the FBS motor until where it is removed.



8. Remove the each two mirror carriage A and B mounting screws.

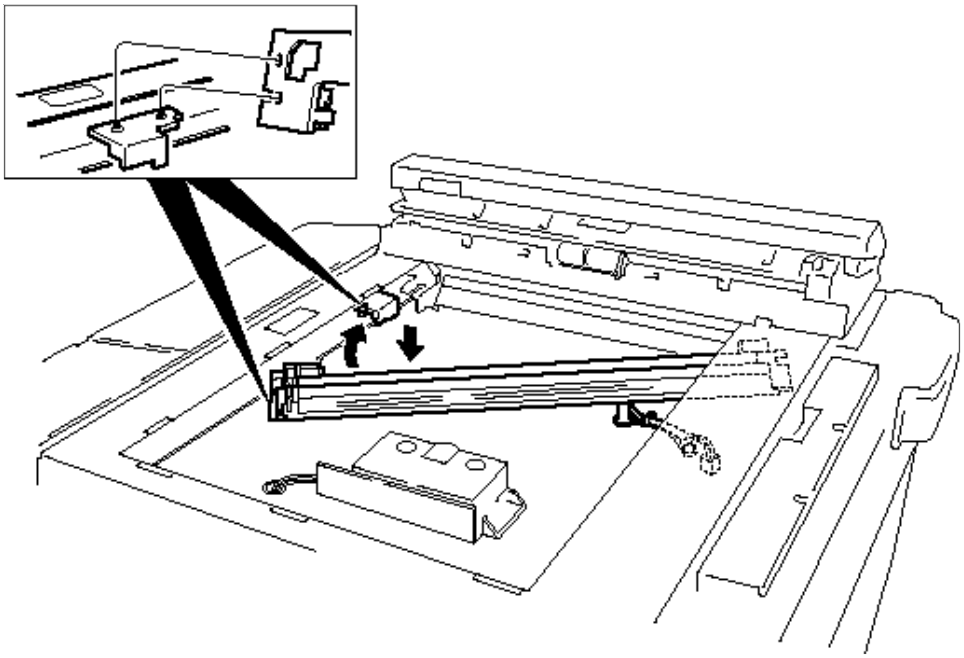


9. Remove the inverter cover.
10. Disconnect the mirror carriage A connector on the inverter PCB.
11. Remove the mirror carriage A.
12. Remove the mirror carriage B.

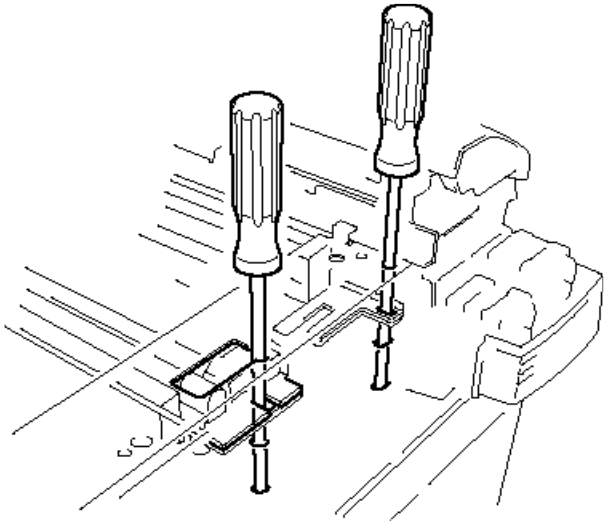


How to re-attach the mirror carriage A and B:

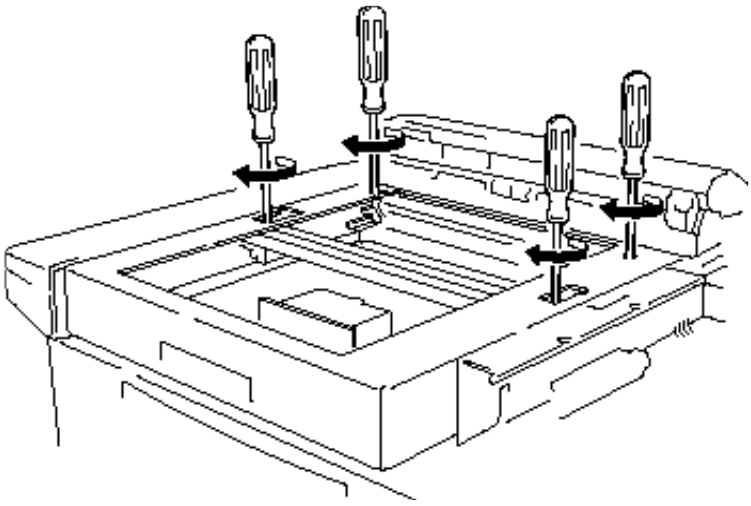
1. Fit the mirror carriage A to the slider on the belt holder.



2. Attach the mirror carriage A and B using each two screws temporarily.
3. Turn the FBS motor to fit the four holes to set the mirror carriage A and B.

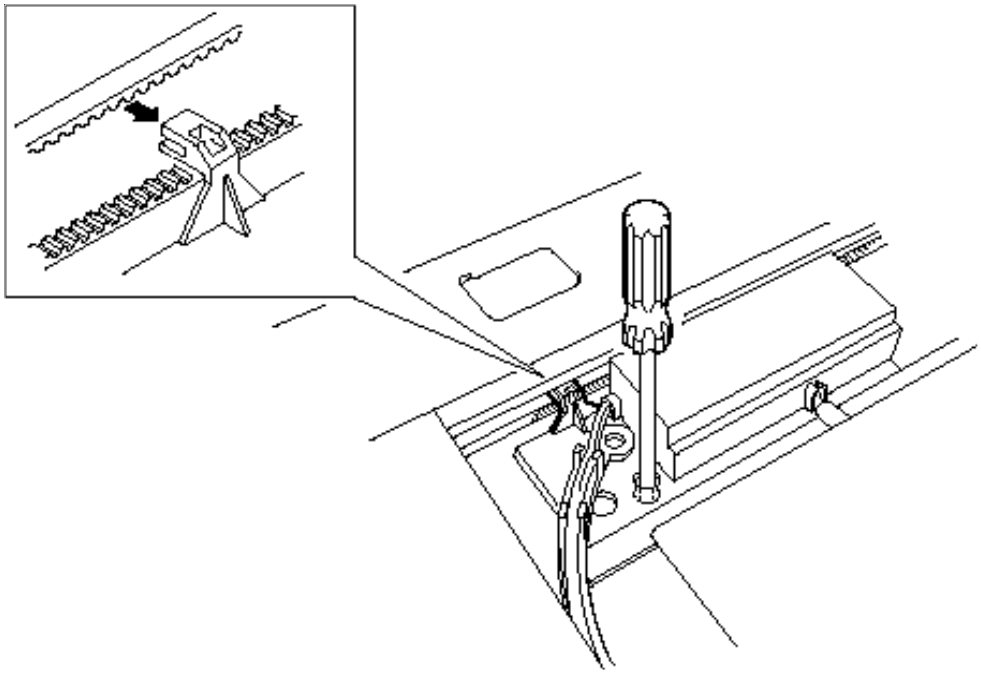


4. Attach gently each two screws you attached temporarily (step 2).

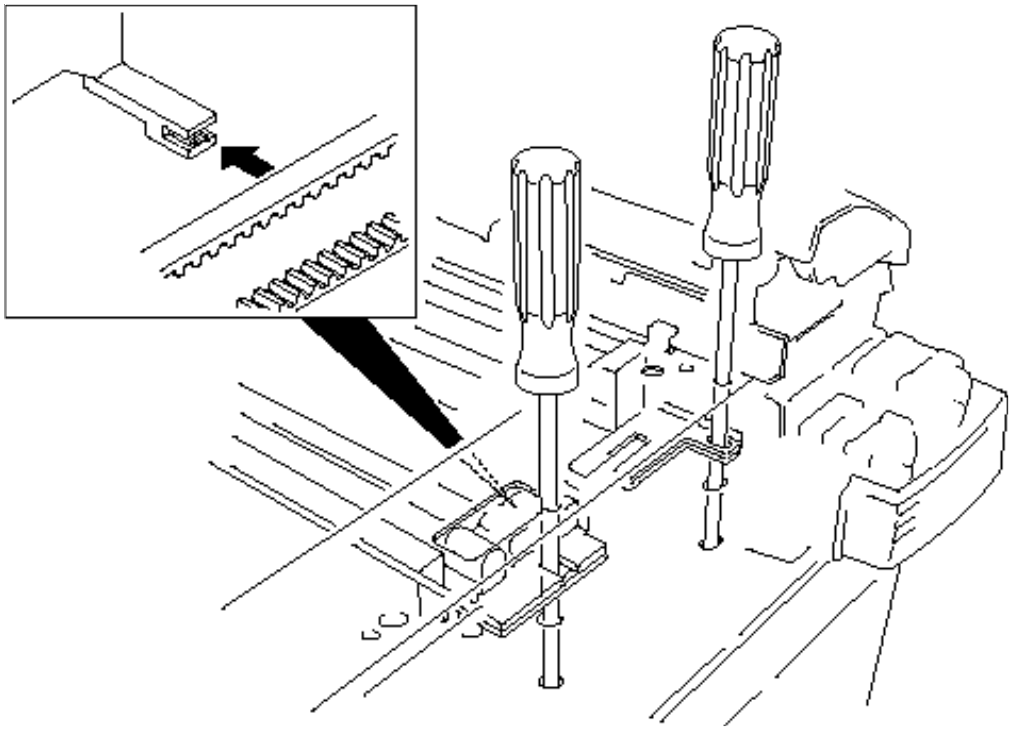


If the inverter belt is off the belt holder:

1.Turn the FBS motor to fit the hole on the inverter holder.
2. Put the belt on the belt holder.

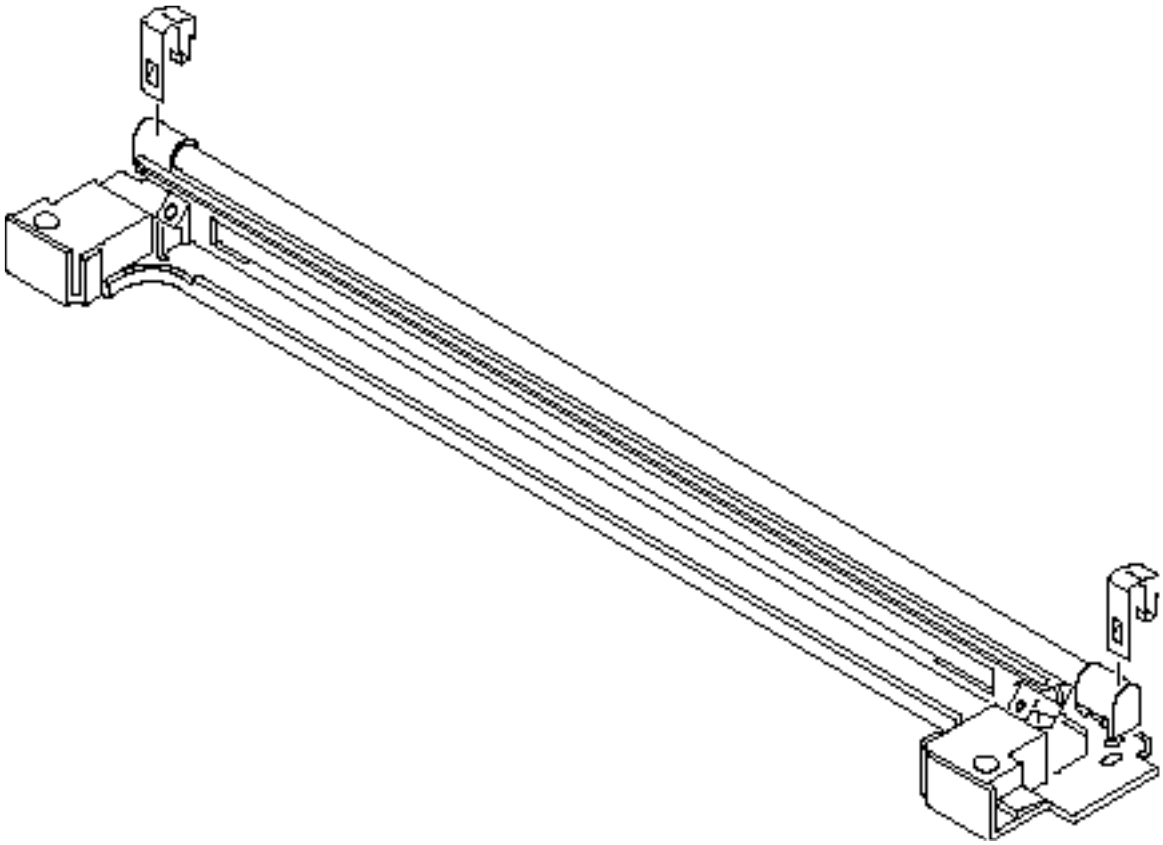


Note: If the belt for the mirror carriage is off the belt holder, put the belt on the belt holder when fitting the four holes to set the mirror carriage.



5.51 Lamp

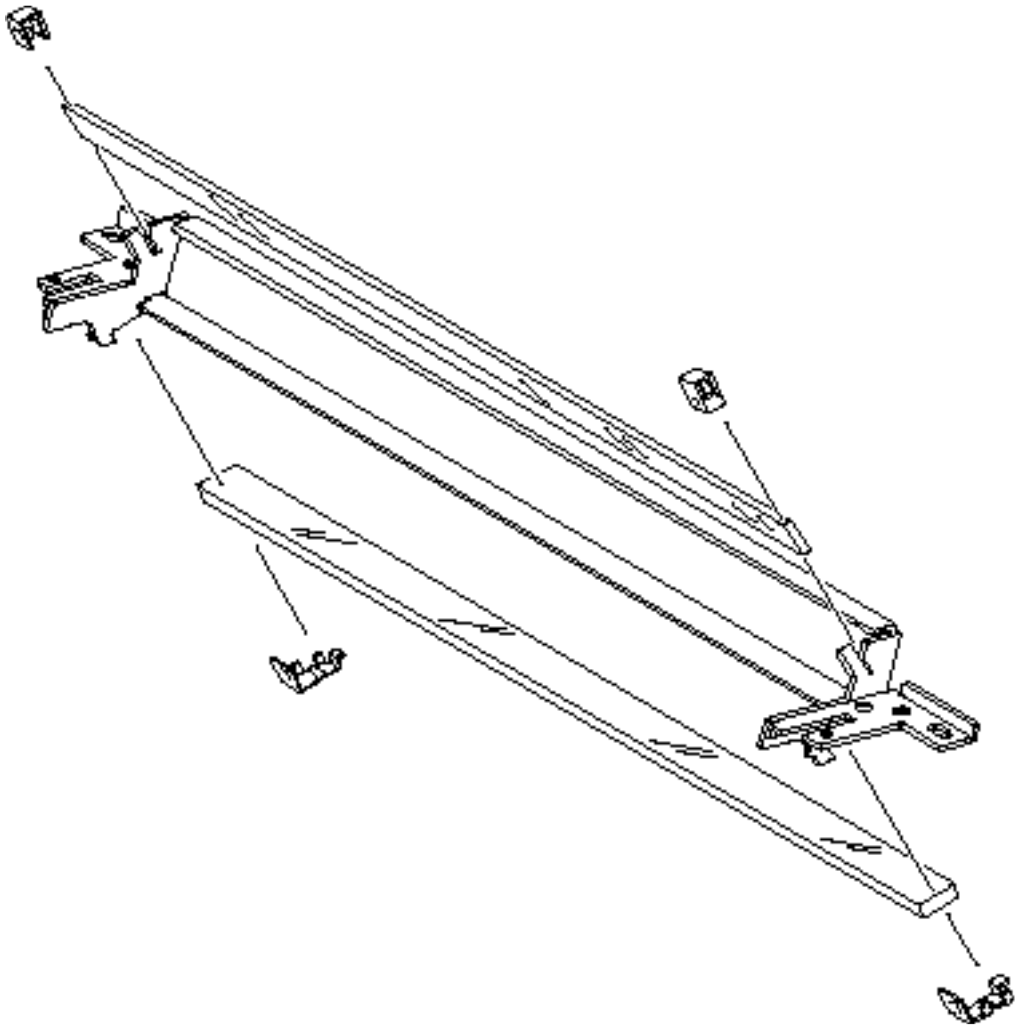
1. Remove the book cover.
2. Remove the upper right cover.
3. Remove the upper rear cover.
4. Remove the upper front cover.
5. Remove the book scanner glass.
6. Remove the mirror carriage A.
7. Remove the cable link A mounting screw, and then remove the cable link A.
8. Remove the lamp connector from the cable link.
9. Release the two locking tabs, and then remove the lamp holder.
10. Remove the lamp.



Note: Perform a background level setting whenever a lamp is exchanged.

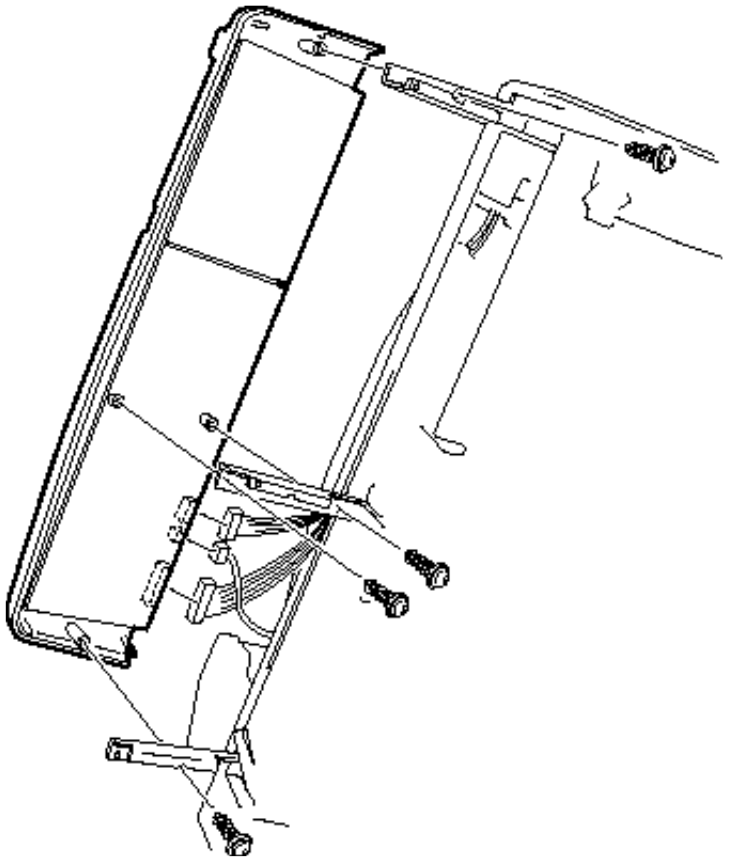
5.52 Mirror A and B

1. Remove the book cover.
2. Remove the upper right cover.
3. Remove the upper rear cover.
4. Remove the upper front cover.
5. Remove the book scanner glass.
6. Remove the mirror carriage A and B.
7. Remove each mirror clamp, remove the mirror A and B.

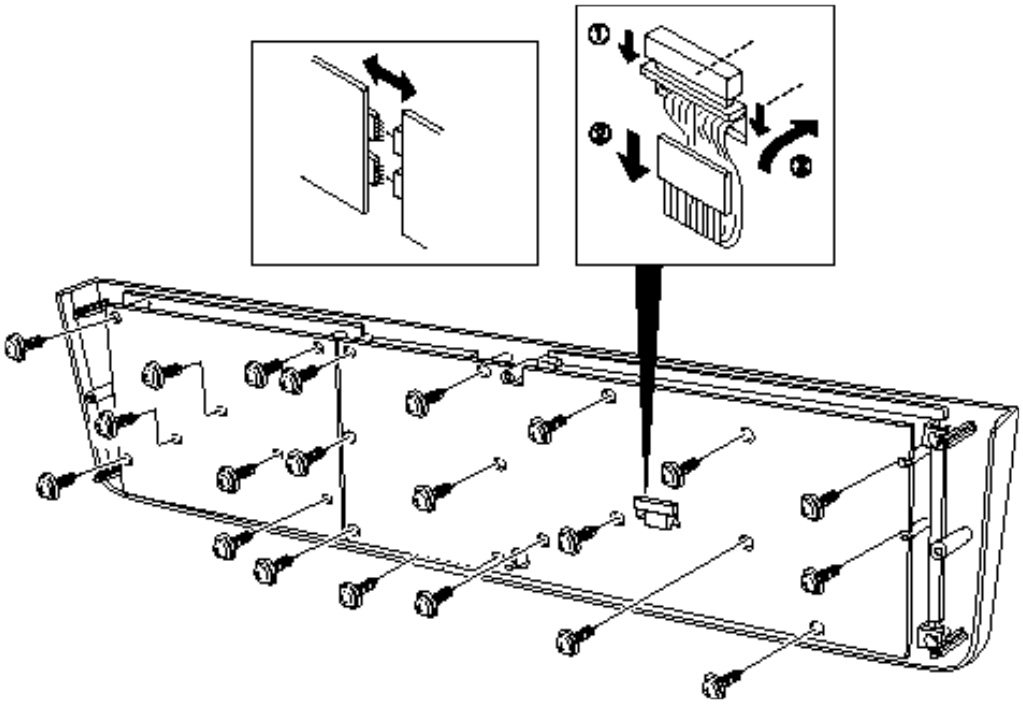


5.53 Control panel PCB 1 and 2

1. Remove the panel lower cover.
2. Remove the four control panel assembly.
3. Disconnect the three connectors on the control panel PCB 1.

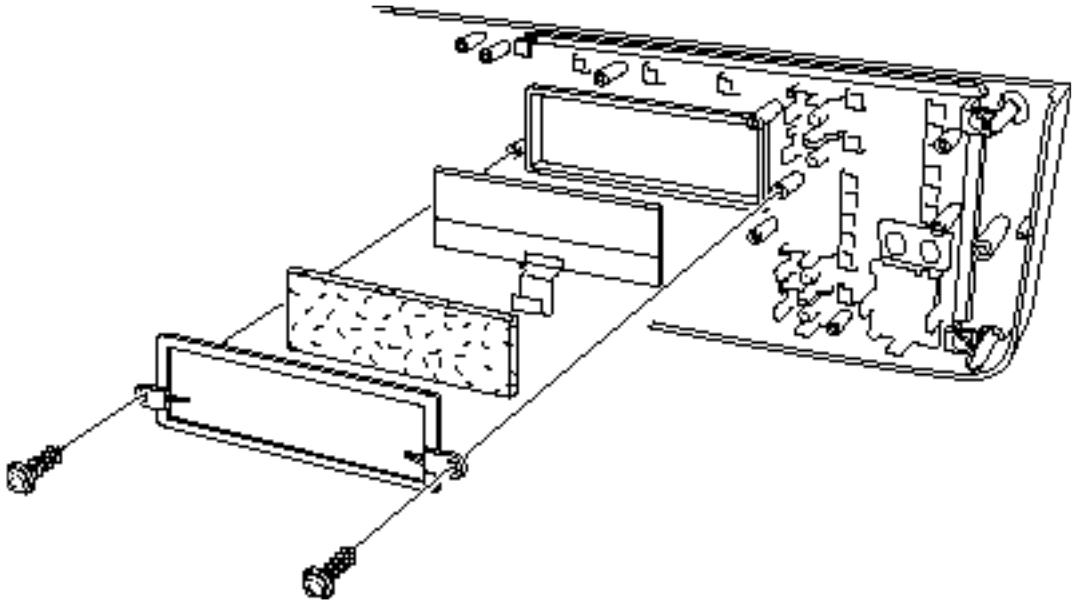


4. Remove the fourteen control panel PCB 1 mounting screws and remove the seven control panel PCB 2 mounting screws.
5. Disconnect the two connectors between PCB 1 and PCB 2.
6. Disconnect the connector on the control panel PCB 1.



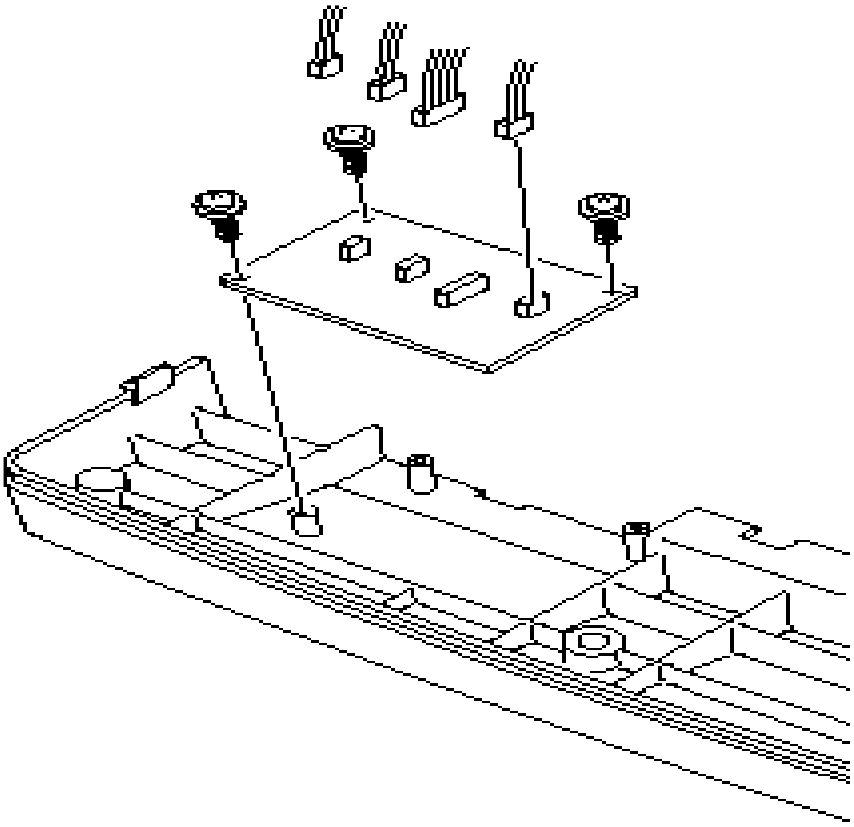
5.53 LCD assembly

1. Remove the panel cover.
2. Remove the control panel PCB1 and 2.
3. Remove the two LCD assembly mounting screws, and then remove the LCD assembly.



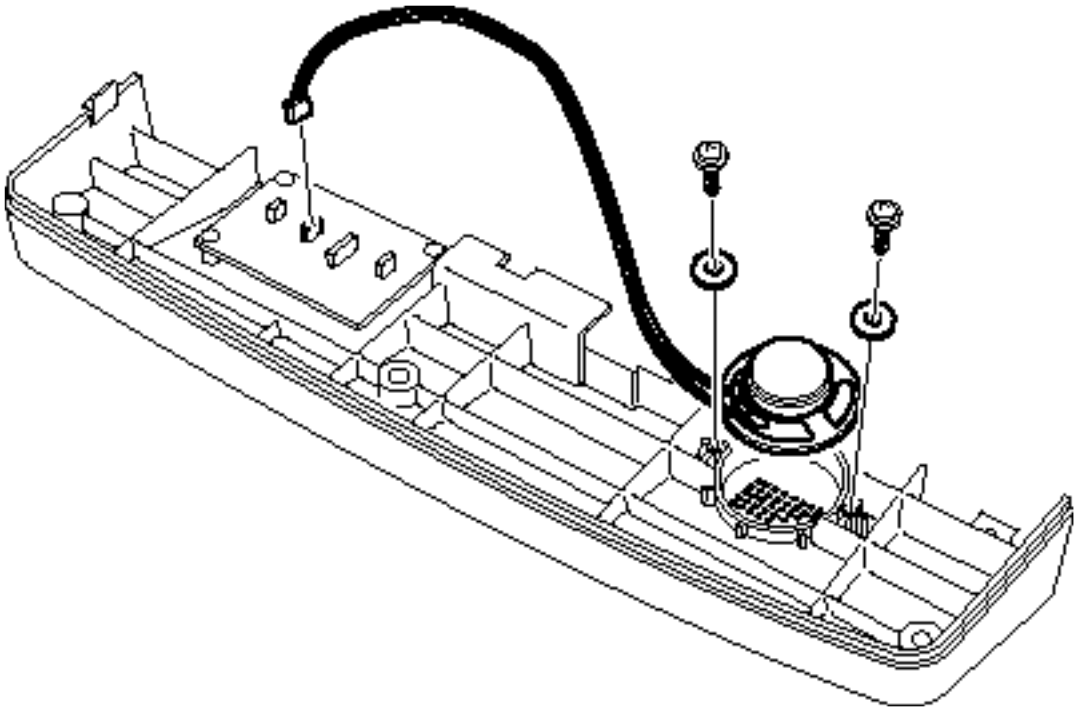
5.54 Connect B PCB

1. Remove the panel lower cover.
2. Remove the four connectors on the connect B PCB.
3. Remove the two connect B PCB mounting screws, and then remove the connect B PCB.



5.55 Speaker

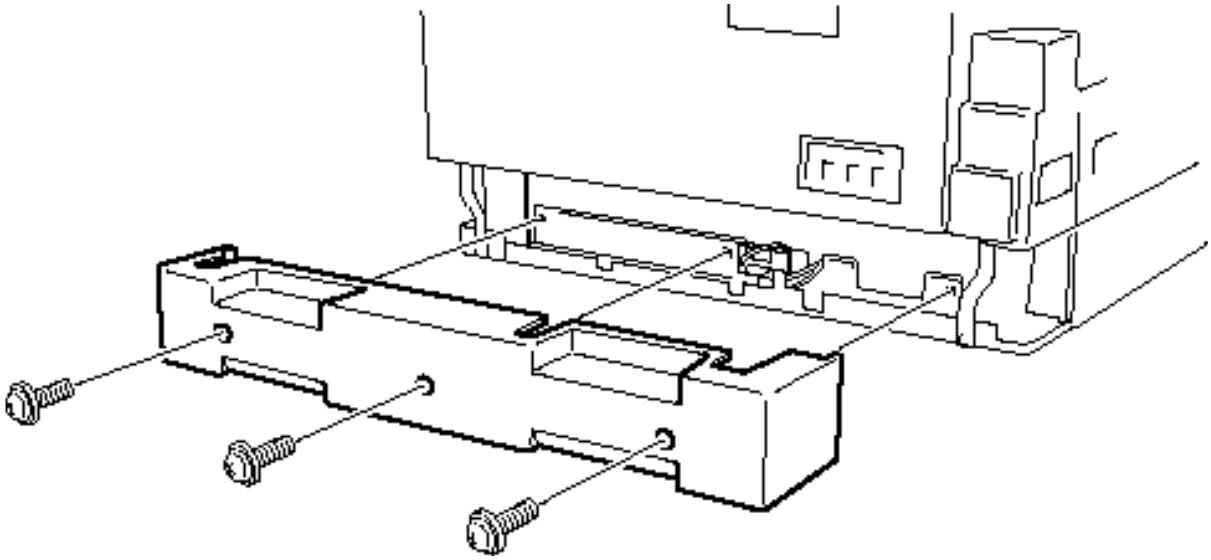
1. Remove the panel lower cover.
2. Remove the connector from the connect B PCB.
3. Remove the two speaker mounting screws, and then remove the speaker.



5.56 Rear cover B

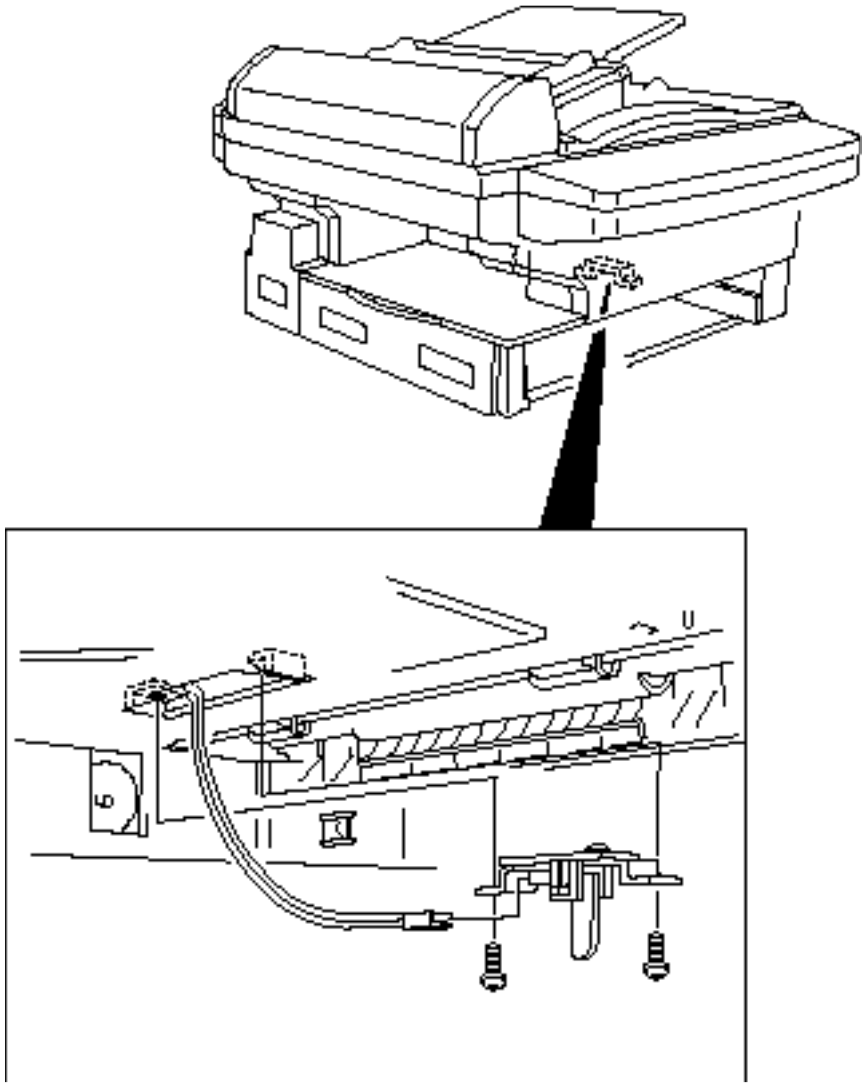
Note: This procedure effects only when optional paper supply unit has been attached.

1. Remove the three rear cover B mounting screws, and then remove the rear cover B.



5.57 PES sensor

1. Pull the paper cassette completely out of the paper supply unit.
2. Remove the two PES sensor mounting screws.
3. Remove the connector from PES sensor.

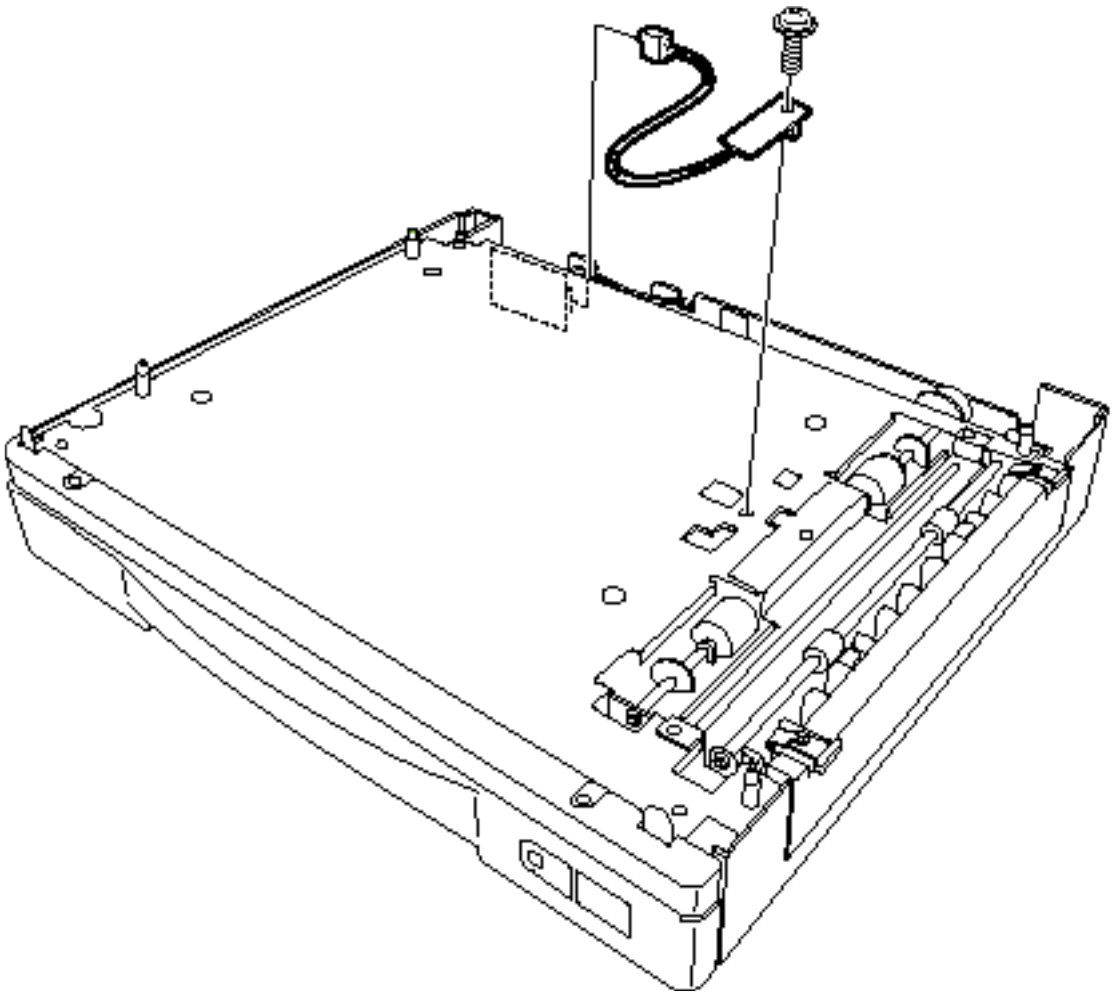


5.58 PES sensor (optional paper supply unit)

Note: This procedure effects only when optional paper supply unit has been attached.

1. Remove the optional paper supply unit.
   a. Remove the rear cover B of the optional paper supply unit.
   b. Remove the connector from the upper connector on the connector PCB.
   c. Remove the two joint plates rear side of the machine.
   d. Pull out the upper paper cassette a few inches.
   e. Remove the two optional paper cassette mounting screws.
   f. Then remove the optional paper supply unit.

2. On the optional paper supply unit, remove a PES sensor mounting screw, and disconnect the connector.
3. Remove the PES sensor.

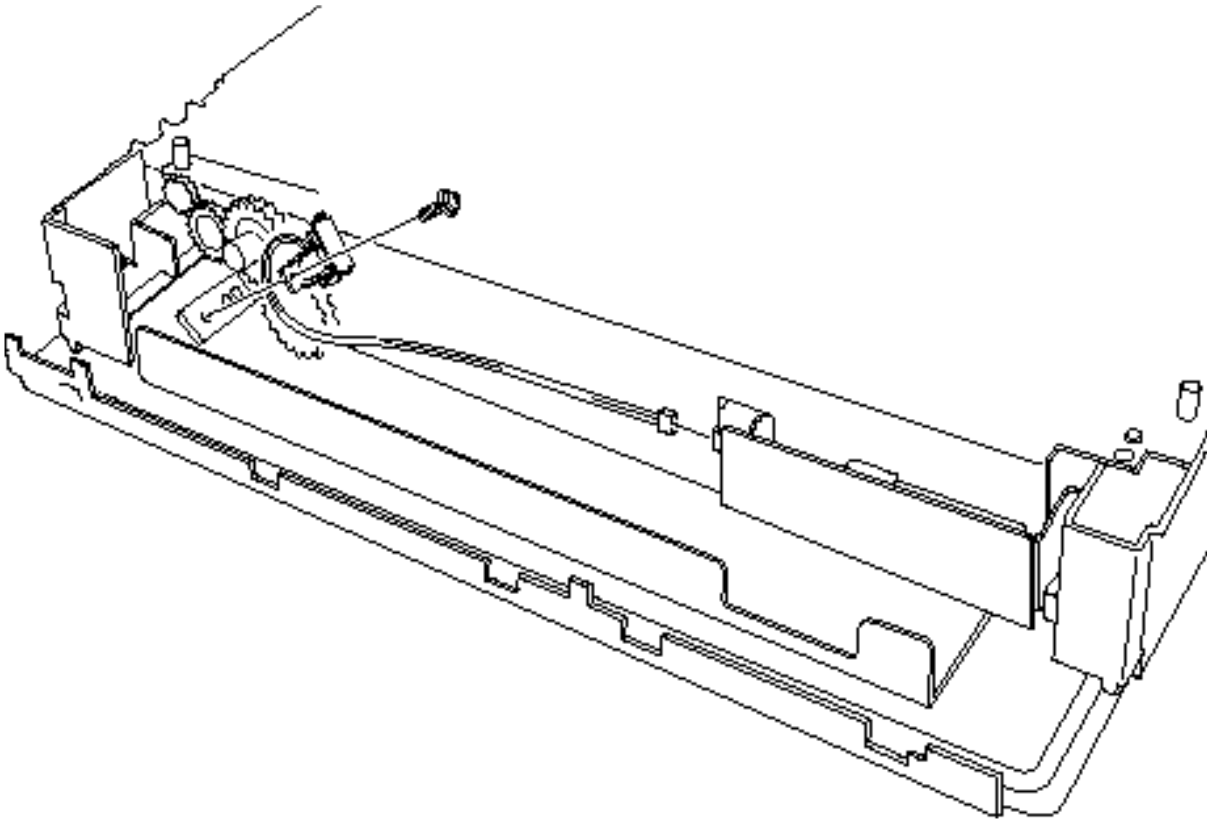


5.59 Solenoid of optional paper supply unit

Note: This procedure effects only when optional paper supply unit has been attached.

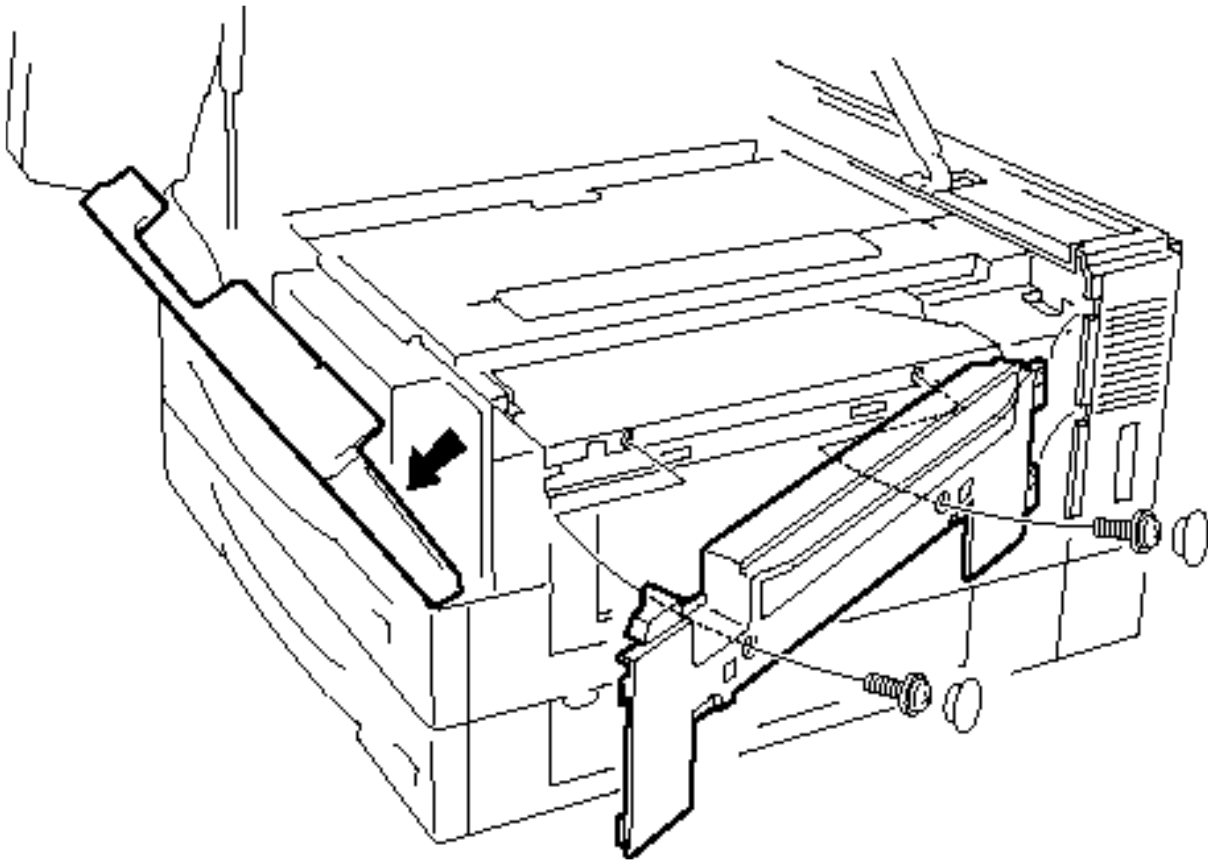
1. Remove the optional paper supply unit.
   a. Remove the rear cover B of the optional paper supply unit.
   b. Remove the connector from the upper connector on the connector PCB.
   c. Remove the two joint plates rear side of the machine.
   d. Pull out the upper paper cassette a few inches.
   e. Remove the two optional paper cassette mounting screws.
   f. Then remove the optional paper supply unit.

2. Remove a solenoid mounting screw, and disconnect the connector.
3. Remove the solenoid.



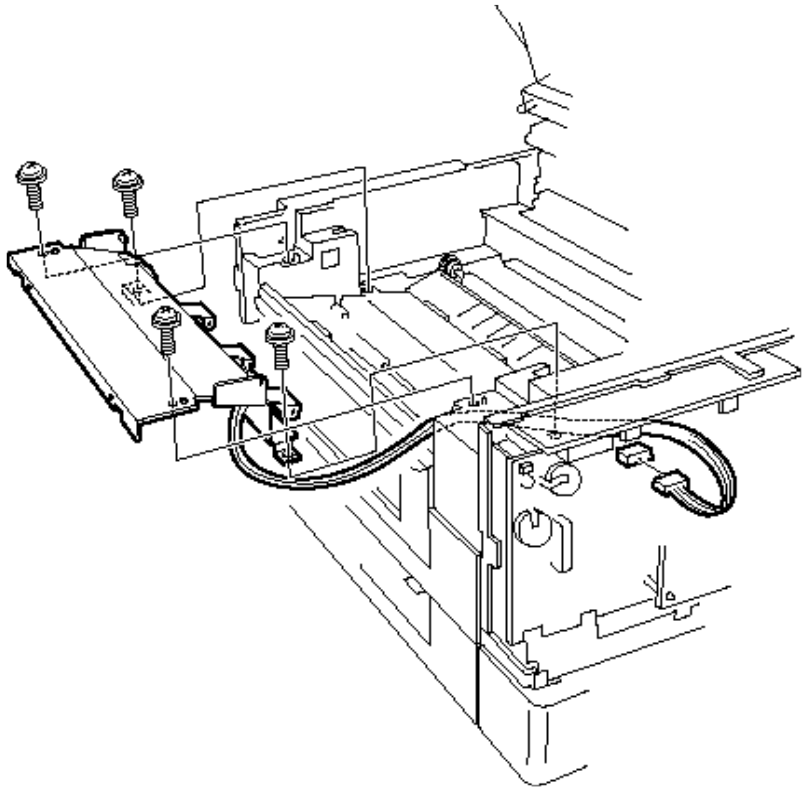
5.60 Right cover

1. Move the front cover by loosen a front cover mounting screw.
2. Remove the screw cover then remove the two right cover mounting screws.
3. Remove the right cover.

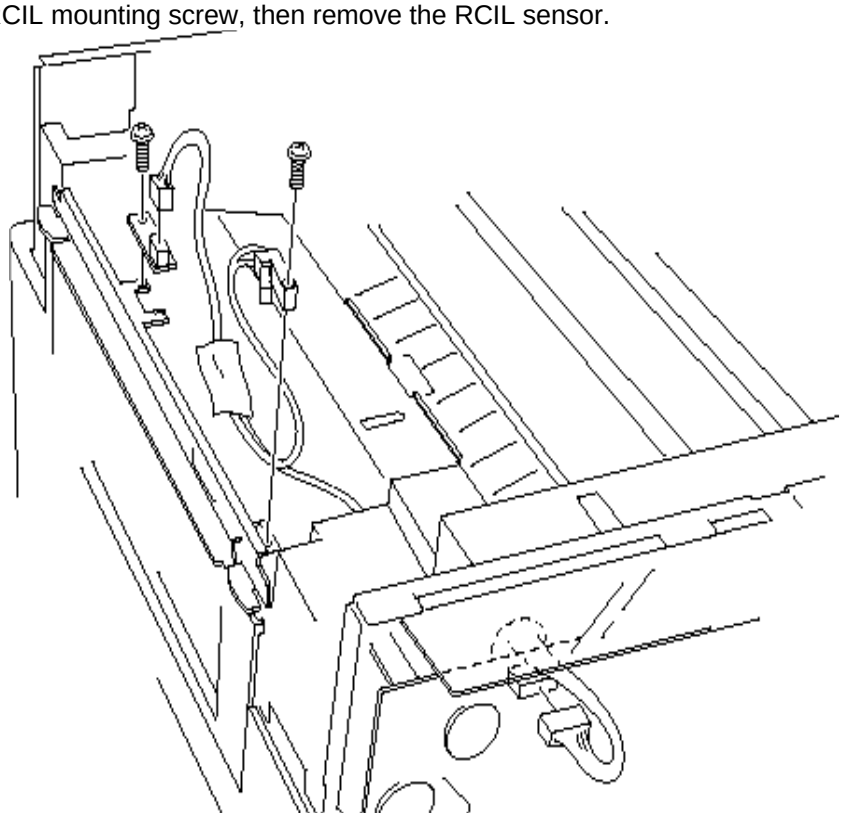


5.61 HPES sensor / RCIL sensor

1. Remove the right cover.
2. Remove the rear cover.
3. Remove shielding cover R.
4. Disconnect the P61 connector from the main control PCB.
5. Open the printer cover, then remove the drum/toner cartridge.
6. Remove the four middle frame mounting screws, then remove the middle frame.
7. Remove a HPES mounting screw and disconnect the connector, then remove the HPES sensor.

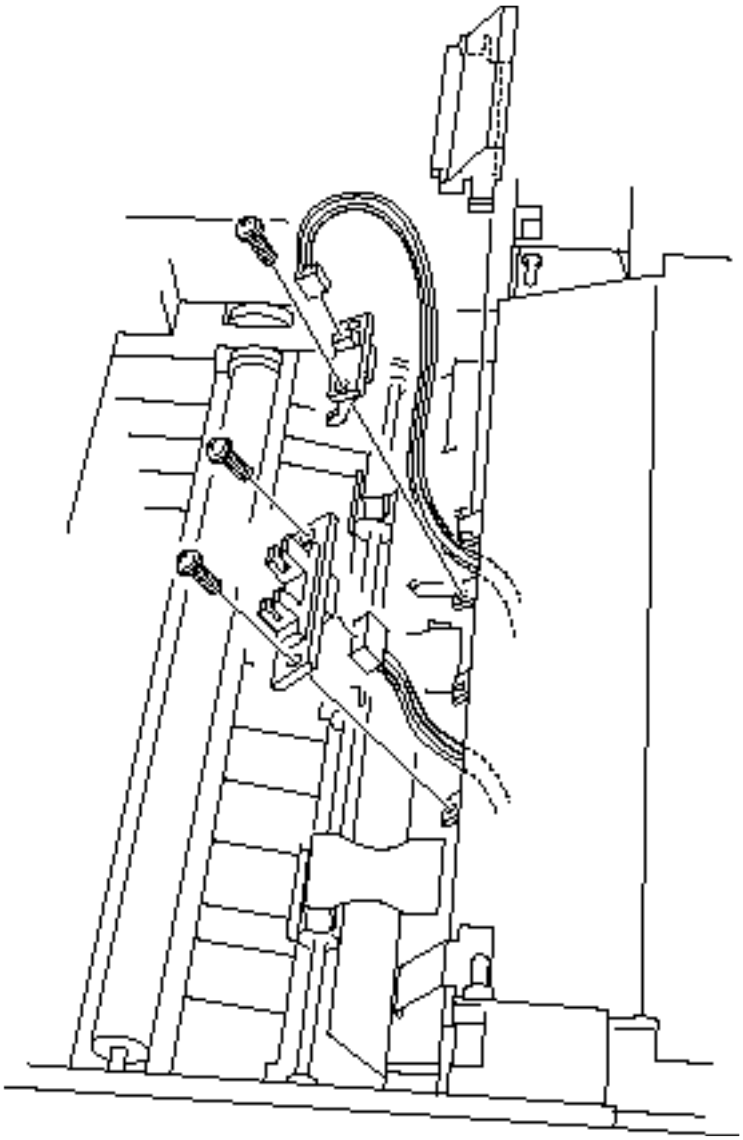


8. Remove a RCIL mounting screw, then remove the RCIL sensor.



5.62 PSS sensor / TOS sensor

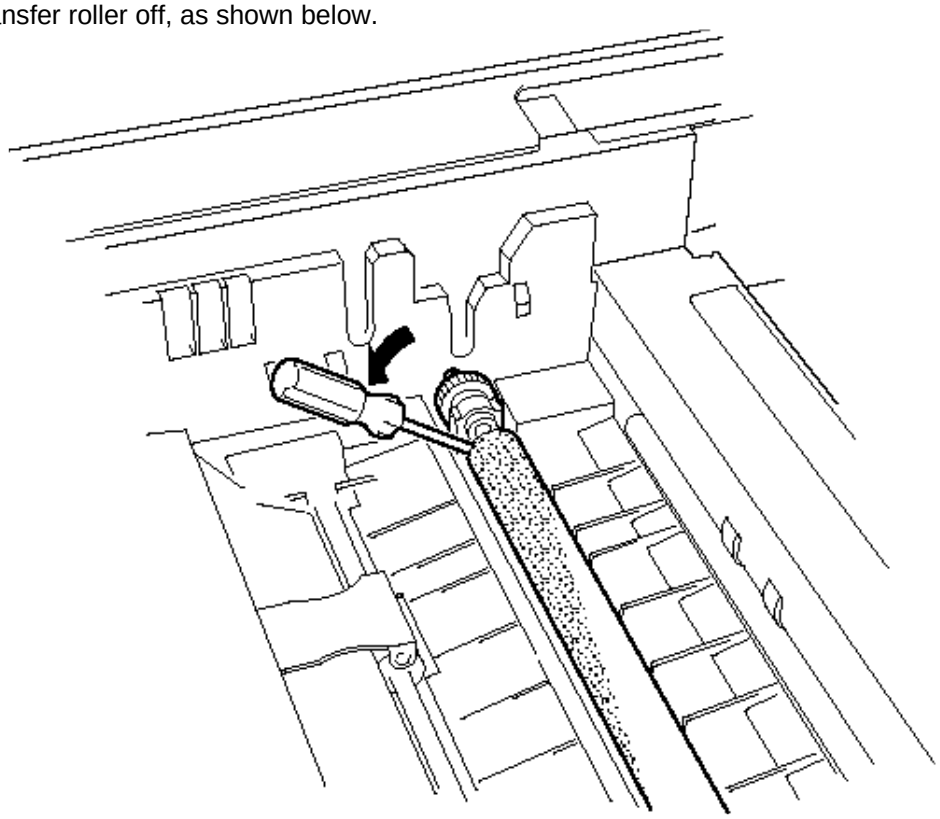
1. Open the top cover.
2. Open the printer cover, then remove the drum/toner cartridge.
3. Remove the two TOS sensor mounting screws and disconnect the connector, then remove the TOS sensor.
4. Remove a PSS sensor mounting screw and disconnect the connector, then remove the PSS sensor.



5.63 Transfer roller

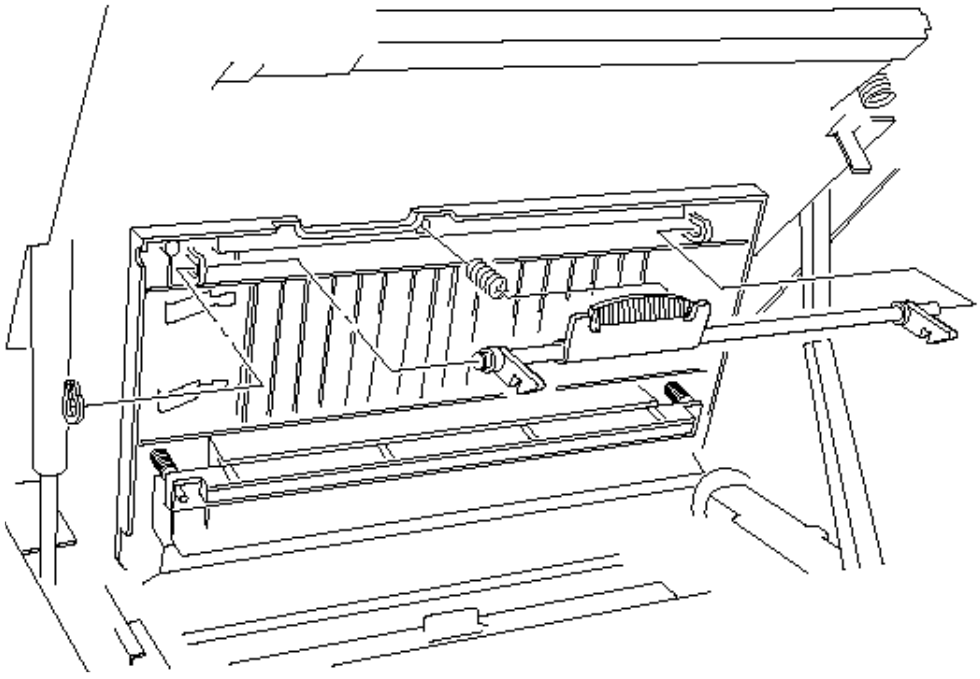
Note: When you replace the transfer roller, you must set the count of replacement manually. See “Printer maintenance mode”, page 3-50.

1. Open the top cover.
2. Open the printer cover, then remove the drum/toner cartridge.
3. Pry a transfer roller off, as shown below.



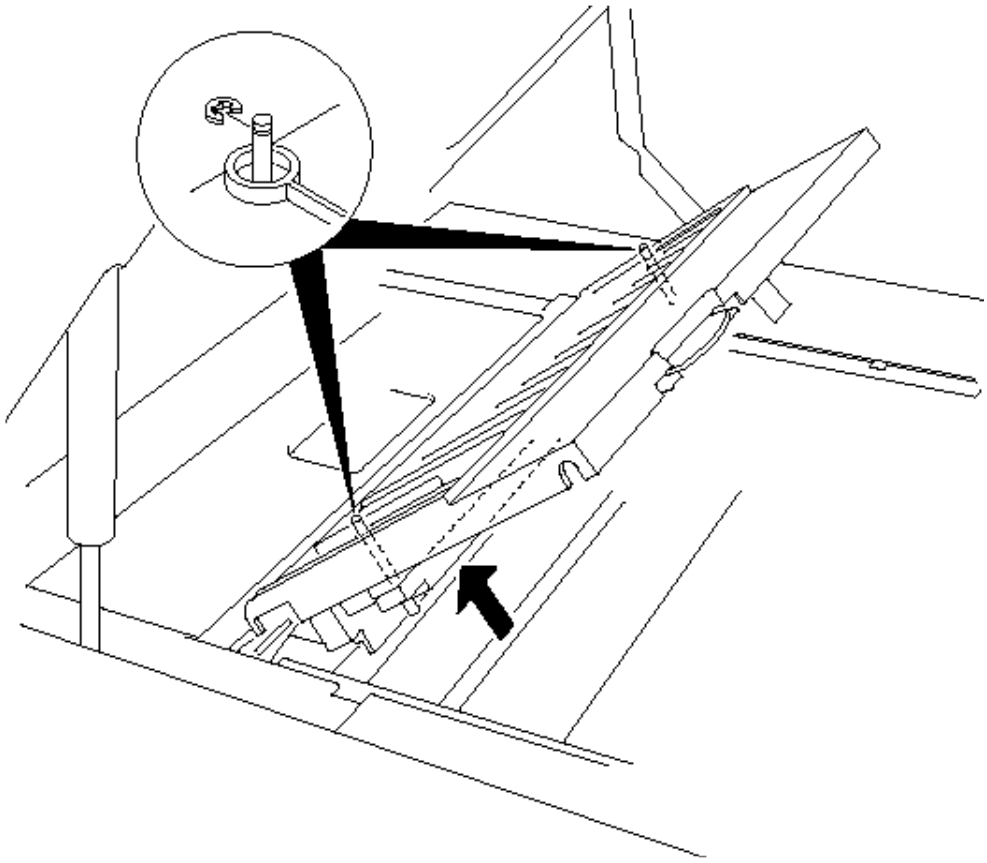
5.64 Lock lever

1. Open the top cover.
2. Open the printer cover.
3. Remove the C-ring, then remove the lock lever by sliding it.

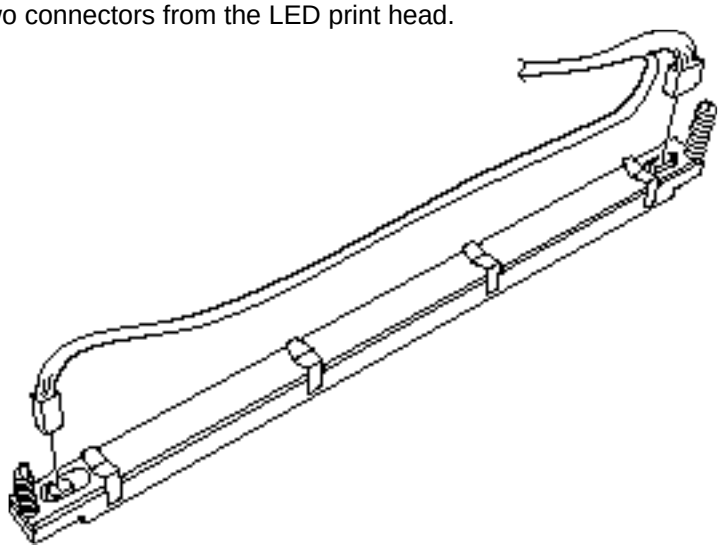


5.65 LED print head

1. Open the top cover.
2. Open the printer cover.
3. Pushing up the LED print head and remove the two E-rings, then remove the LED print head.

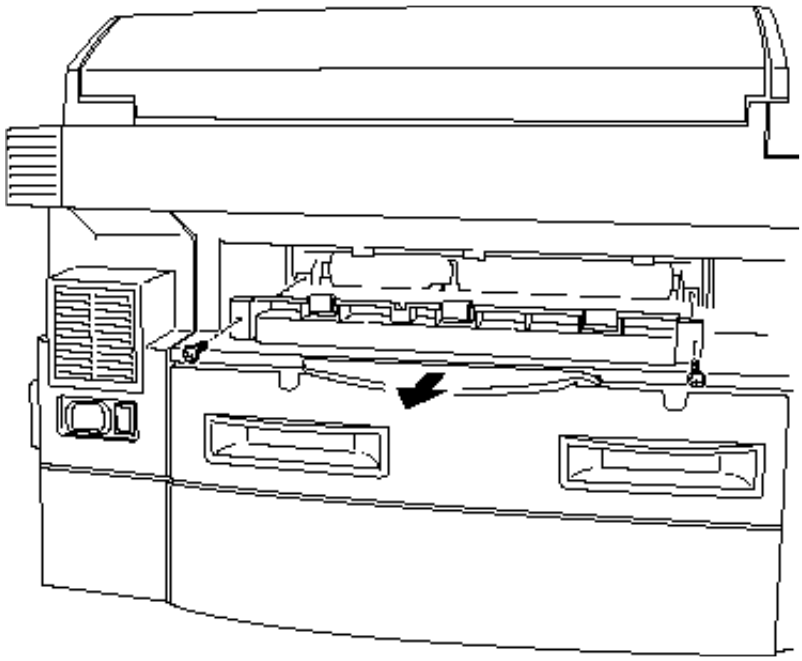


4. Disconnect the two connectors from the LED print head.



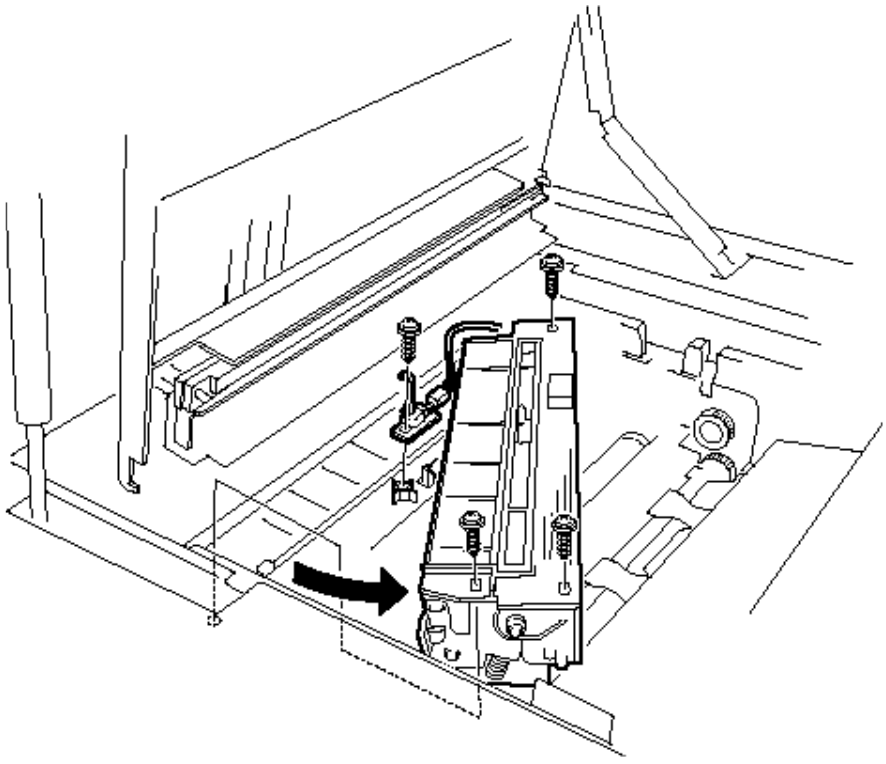
5.66 Paper guide

1. Remove the two paper guide mounting screws.
2. Remove the paper guide.



5.67 PDS sensor

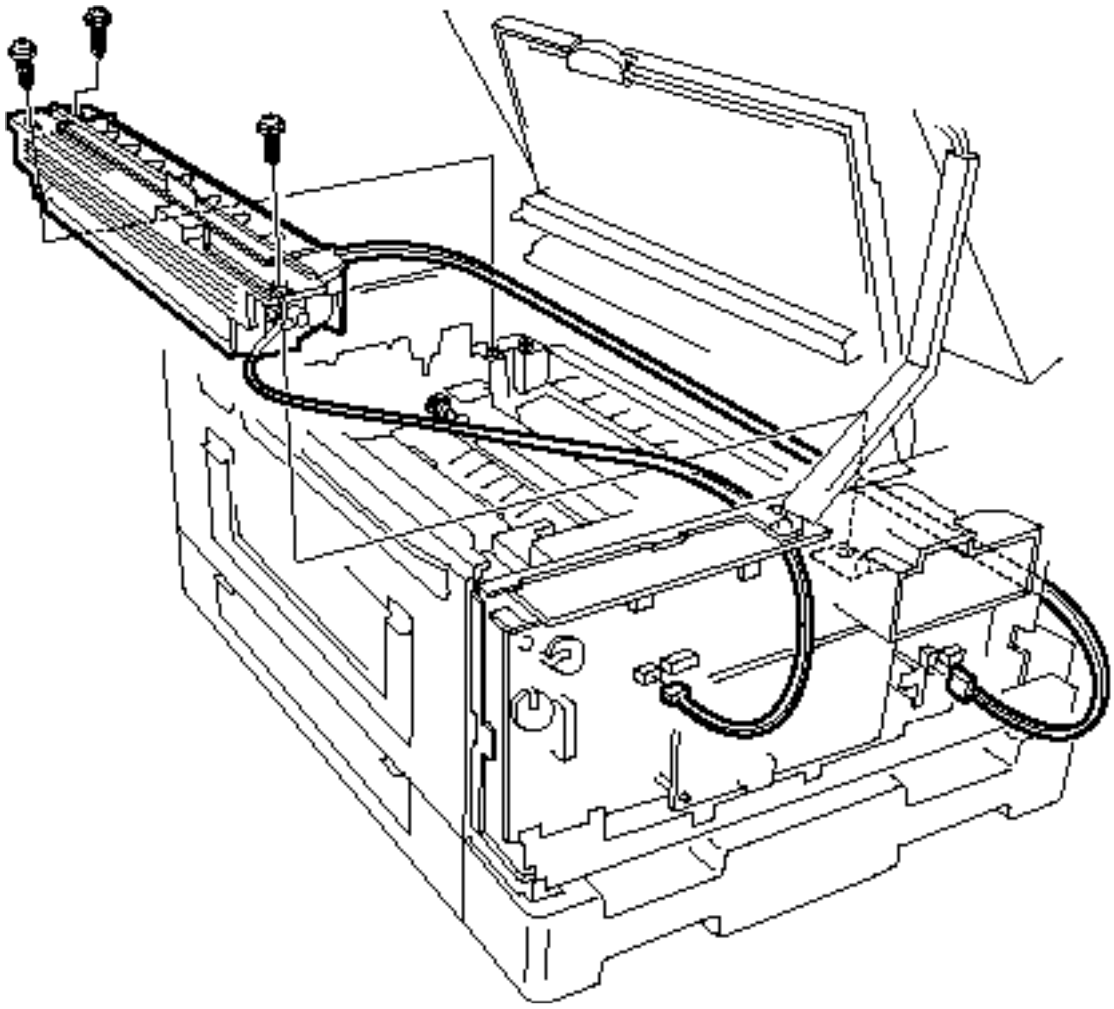
1. Open the top cover.
2. Open the printer cover, then remove the drum/toner cartridge.
3. Remove the two paper guide mounting screws, then remove the paper guide.
4. Move the fuser unit by remove the three fuser unit mounting screws.
5. Remove a PDS sensor mounting screw and disconnect the connector, then remove the PDS sensor.



5.68 Fuser unit

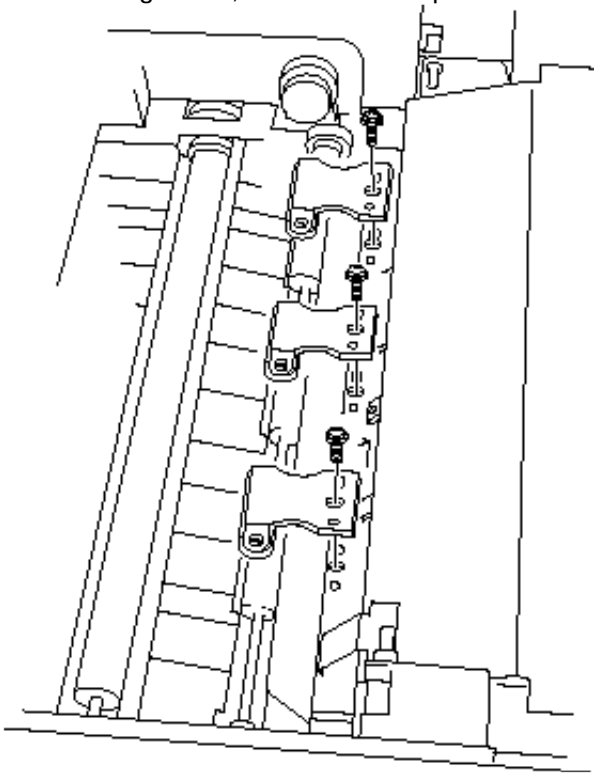
Note: When you replace the fuser unit, you must set the count of replacement manually. See “Printer maintenance mode”, page 3-50.

1. Open the top cover.
2. Remove the rear cover.
3. Disconnect the CN2 connector from the power supply unit.
4. Remove the shielding plate R.
5. Disconnect the connector A PCB.
6. Disconnect the P51 connector from the main control PCB.
7. Open the printer cover, then remove the drum/toner cartridge.
8. Remove the paper guide.
9. Remove the three fuser unit mounting screws, then remove the fuser unit.

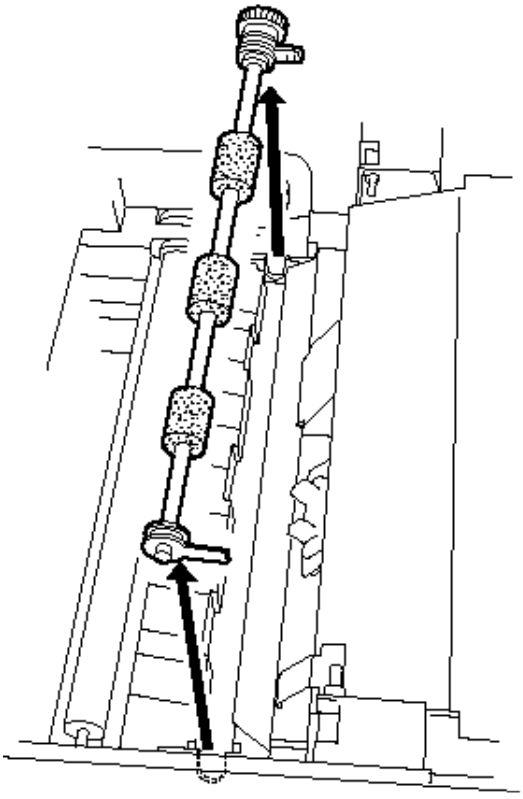


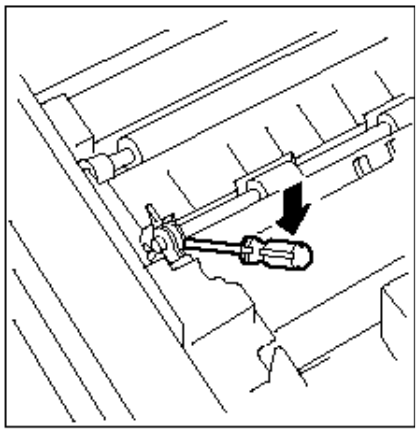
5.69 Feed roller B

1. Open the top cover.
2. Open the printer cover, then remove the drum/toner cartridge.
3. Remove the press roller B mounting screw, the remove the press roller B.

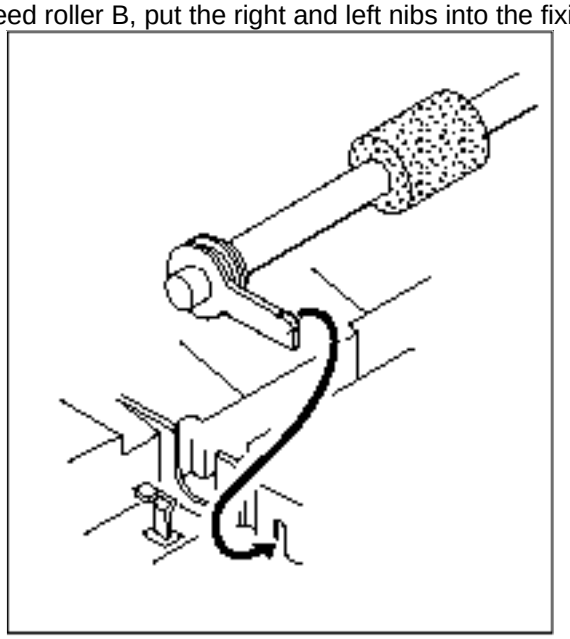


4. Pry a feed roller B off.



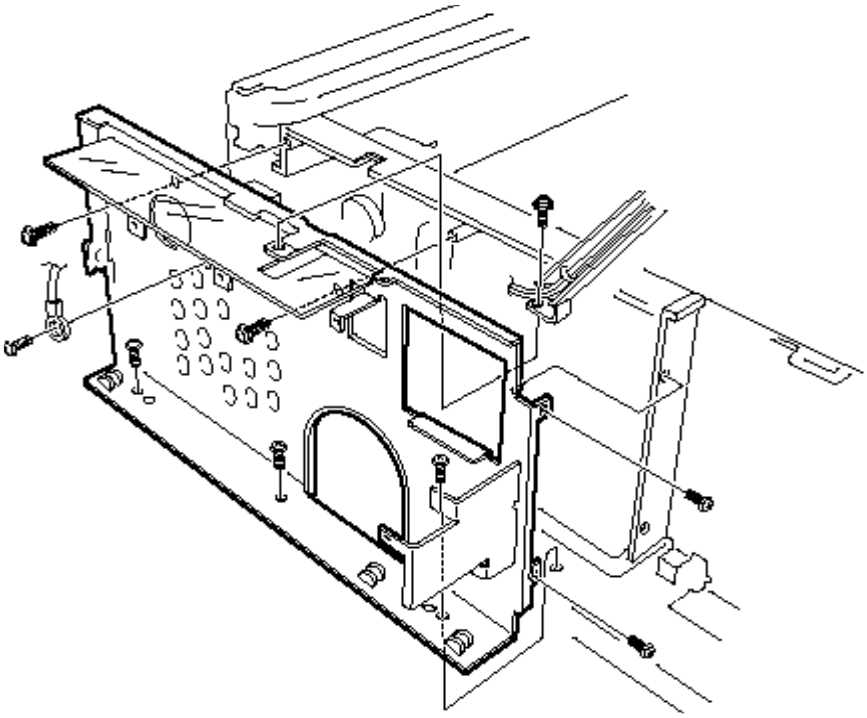


Note: If you re-attach the feed roller B, put the right and left nibs into the fixing hole as shown.

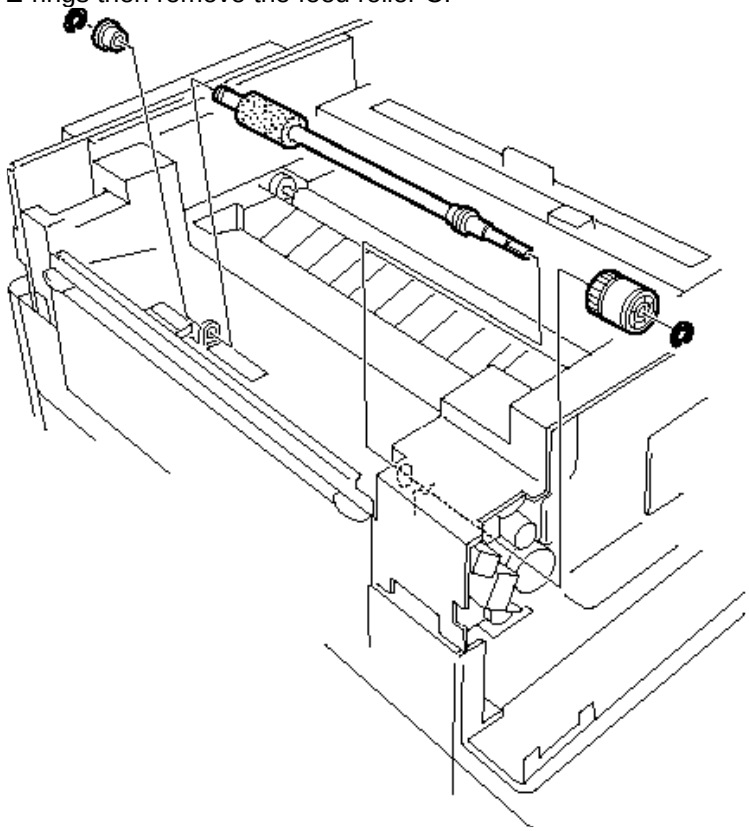


5.70 Feed roller C

1. Open the top cover.
2. Remove the rear cover.
3. Remove the shielding plate R.
4. Remove the connect A PCB, NCU PCB, Main control PCB and Modem PCB.
5. Remove the duct and inside fan motor.
6. Remove the modular bracket,
7. Remove the power supply unit.
8. Remove the nine screws then remove the rear frame.

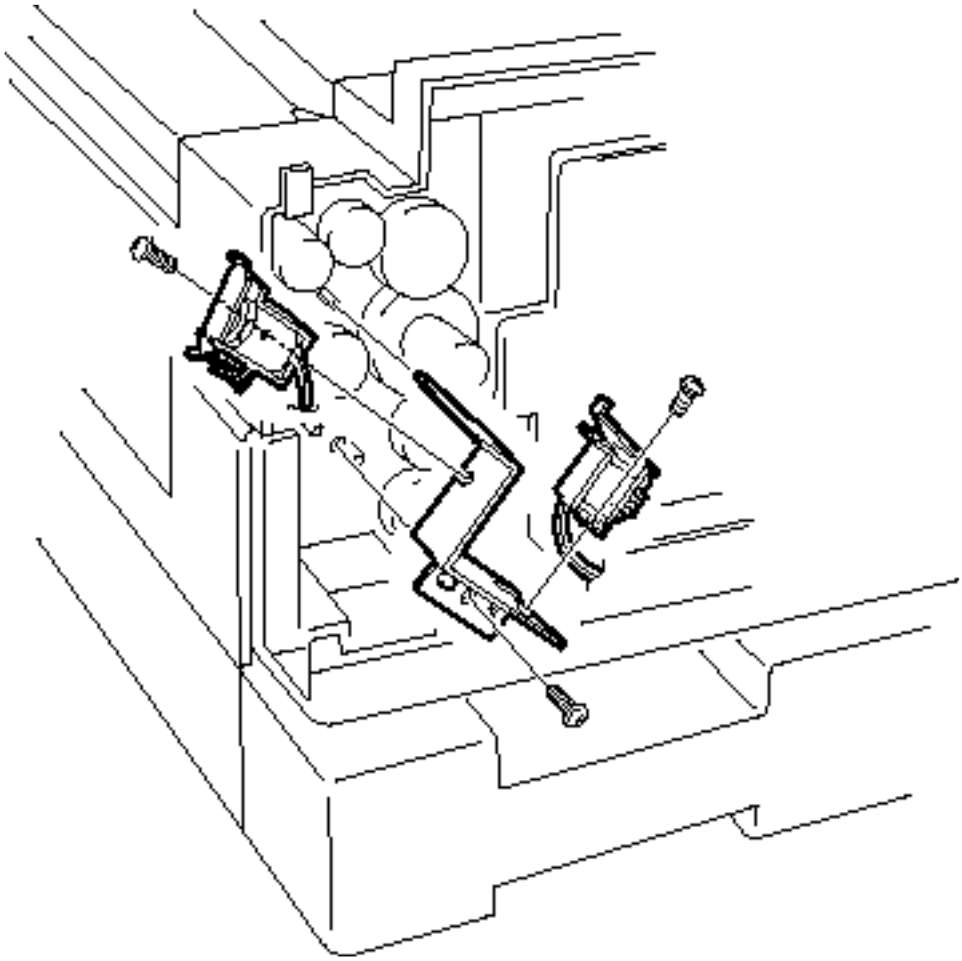


9. Remove the two E-rings then remove the feed roller C.



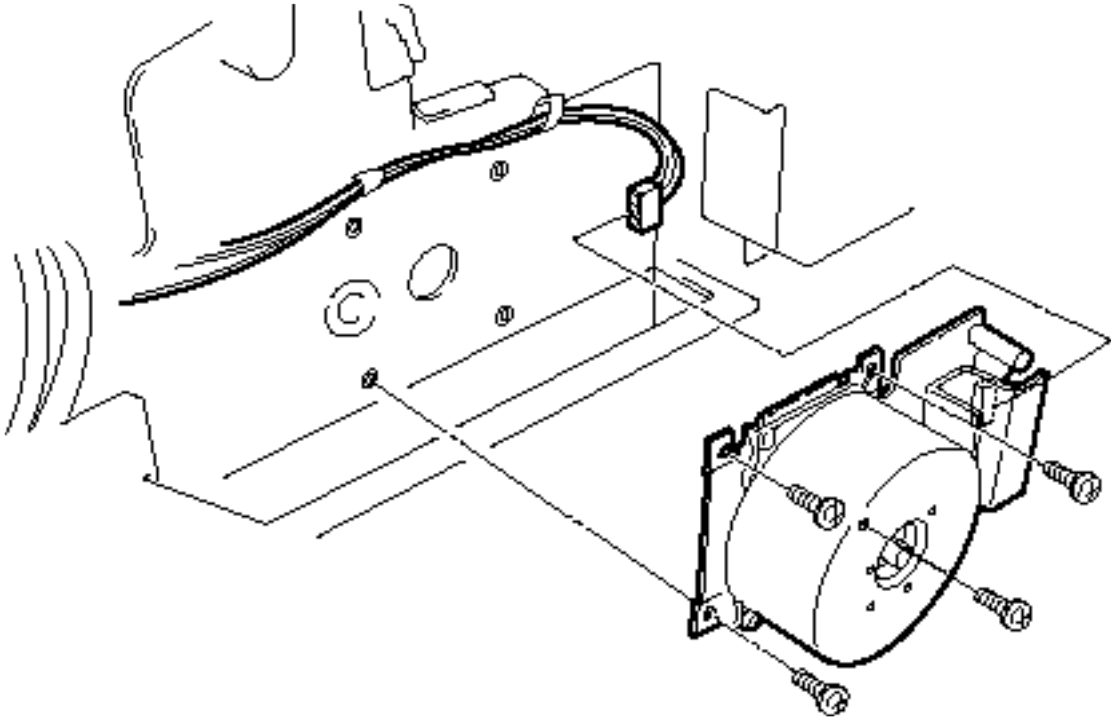
5.71 Solenoid

1. Open the top cover.
2. Remove the rear cover.
3. Remove the shielding plate R.
4. Remove the connect A PCB, NCU PCB, Main control PCB and Modem PCB.
5. Remove the duct and inside fan motor.
6. Remove the modular bracket,
7. Remove the power supply unit.
8. Remove the nine screws then remove the rear frame.
9. Remove the solenoid bracket mounting screw, then remove the solenoid bracket.
10. Remove the screws then remove the solenoid.



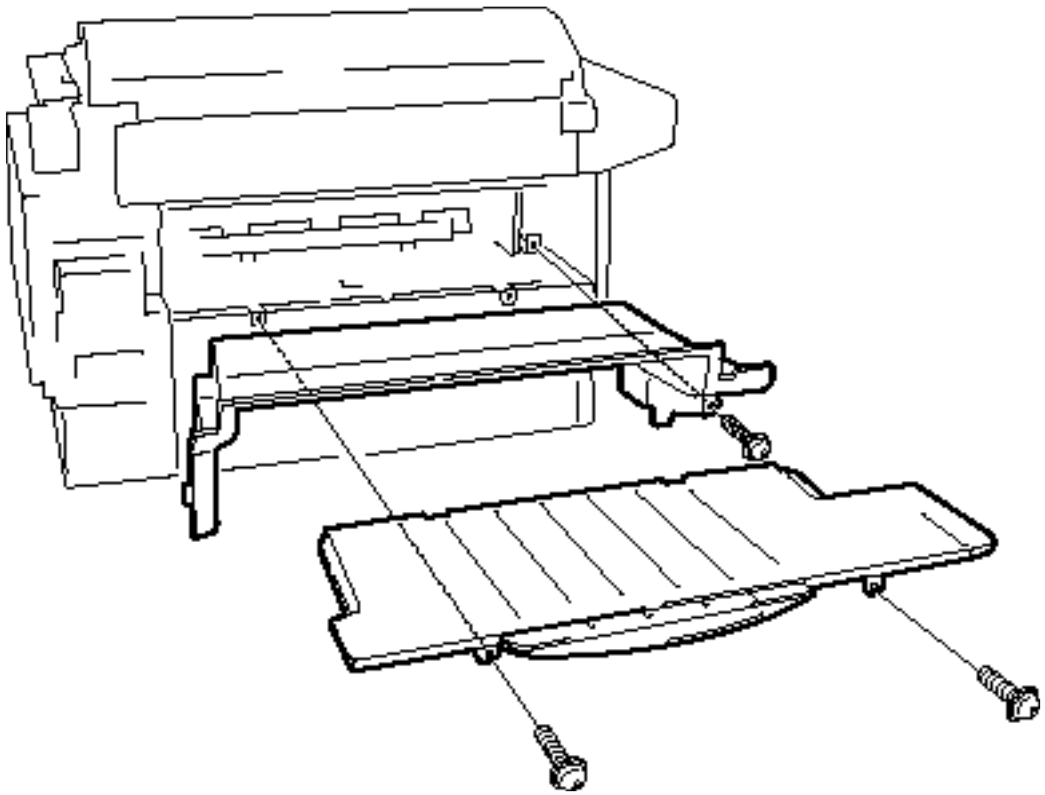
5.72 RX motor

1. Open the top cover.
2. Remove the rear cover.
3. Remove the shielding plate R.
4. Remove the connect A PCB, NCU PCB, Main control PCB and Modem PCB.
5. Remove the duct and inside fan motor.
6. Remove the modular bracket,
7. Remove the power supply unit.
8. Remove the nine screws then remove the rear frame.
9. Remove the four RX motor mounting screws, then remove the RX motor.

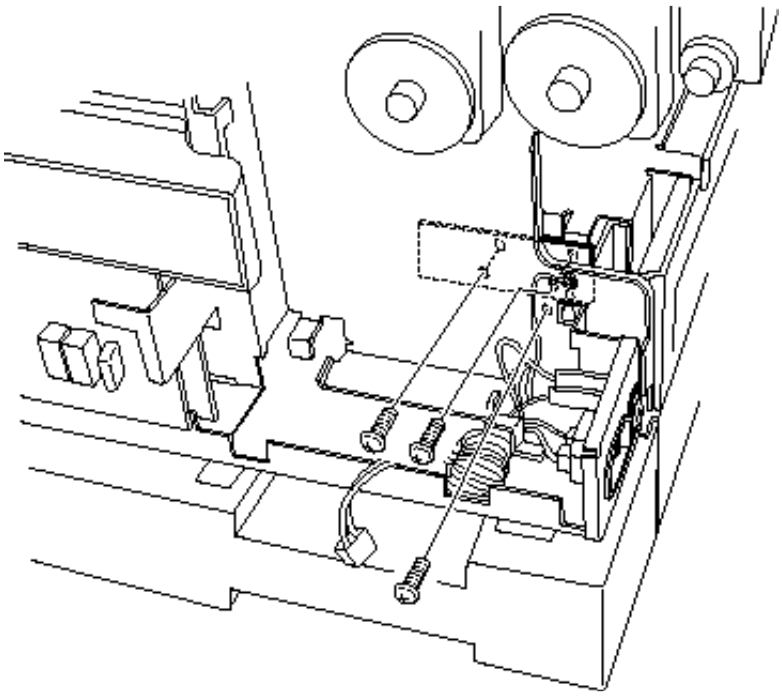


5.73 Cassette PCB

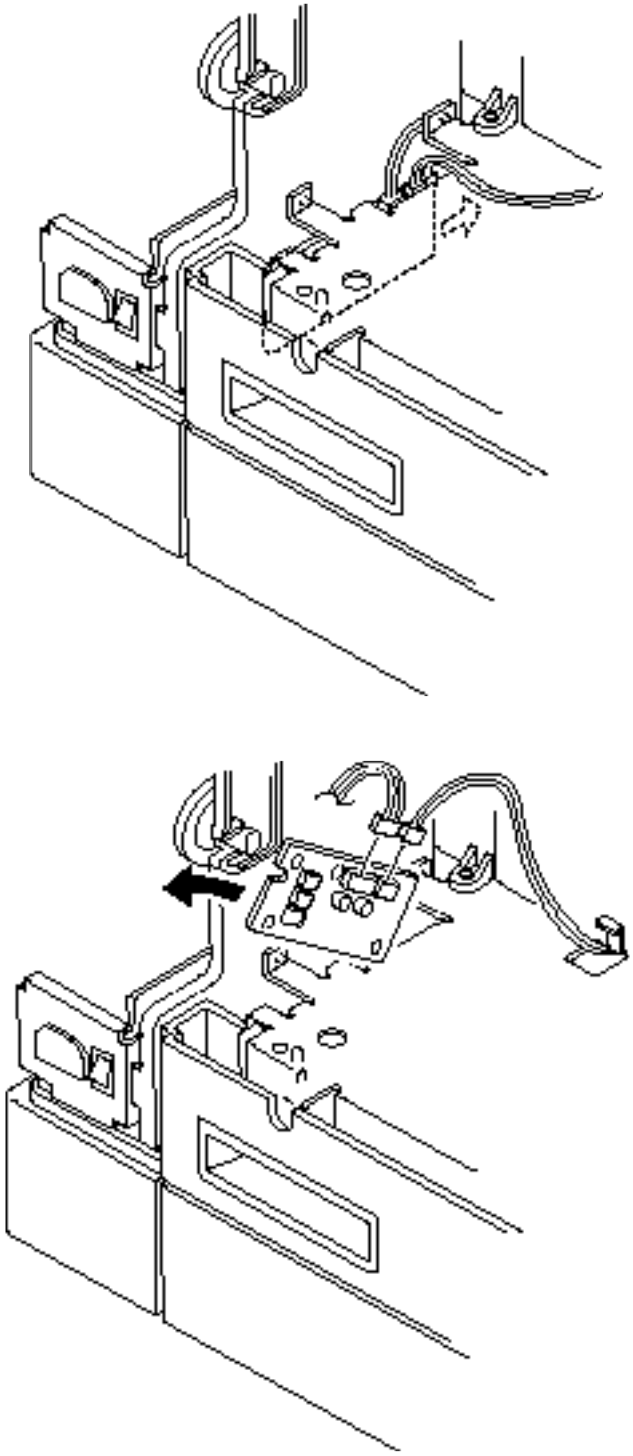
1. Remove the upper left cover.
2. Open the top cover.
3. Remove the front cover.
4. Remove the two RX exit cover B mounting screws, then remove the RX exit cover B.
5. Remove a RX exit cover A mounting screws, then remove the RX exit cover A.



6. Remove the rear cover.
7. Remove the modular bracket.
8. Remove the power supply unit.
9. Remove the three cassette PCB mounting screws.

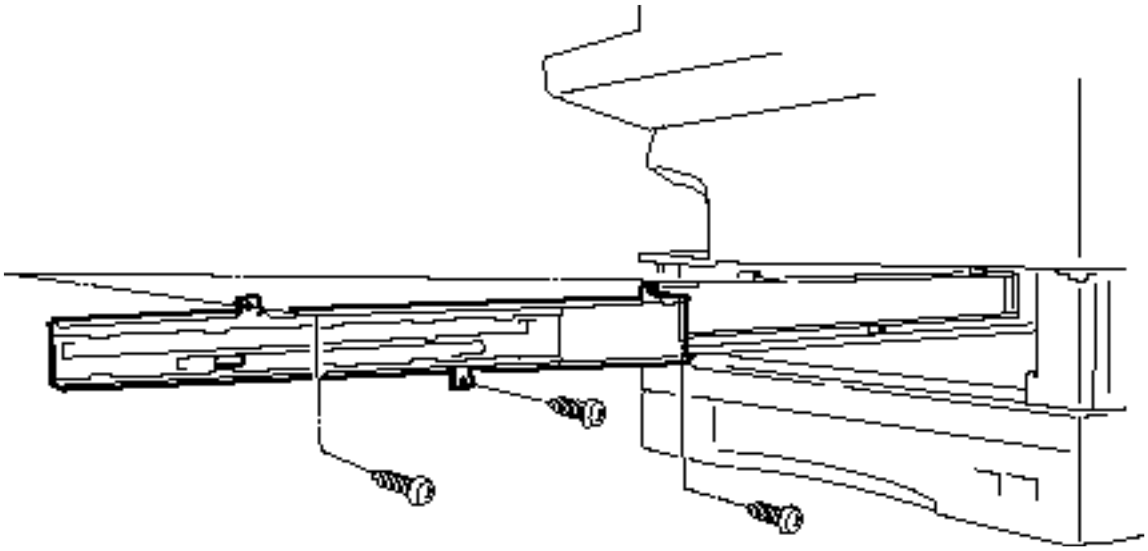


10. Move the cassette PCB by sliding it.
11. Disconnect the all connectors on the cassette PCB.

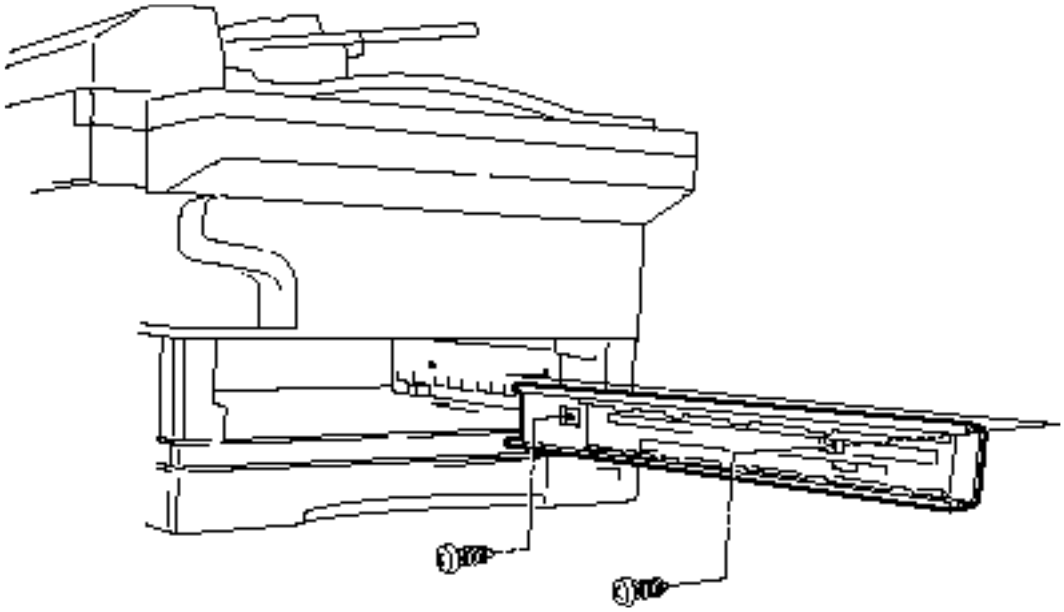


5.74 Cassette rail

1. Pull the paper cassette completely out of the machine.
2. Remove the three cassette rail L mounting screws, then remove the cassette rail L.



3. Remove a cassette rail R mounting screw, then remove the cassette rail R.



5.75 Cassette PCB / Connect PCB

Note: This procedure effects only when optional paper supply unit has been attached.

1. Remove the rear cover B of the optional paper supply unit.
2. Remove the two cassette PCB mounting screws and disconnect the all connector on the cassette PCB, then remove the cassette PCB.
3. Remove the two connector PCB mounting screws and disconnect the all connector on the connector PCB, then remove the connector PCB.